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DRUG & CHEMICAL MARKETS

ESTABLISHED IN SEPTEMBER 1914 AS "WEEKLY DRUG MARKETS"

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VOL. V NEW YORK, OCTOBER 8, 1919. No. 57

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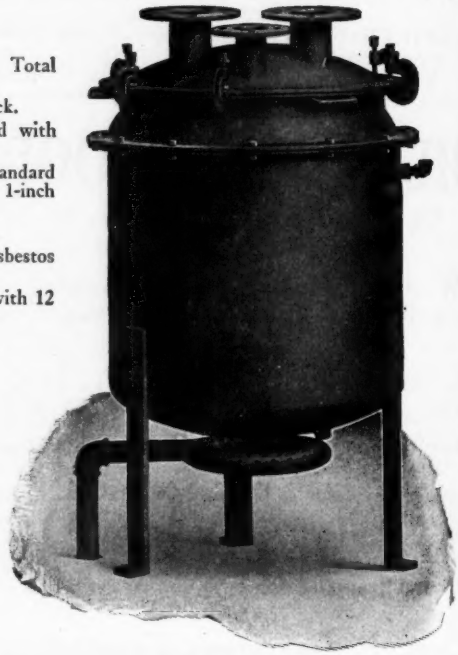

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A BINDER
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Power to Confer Dye Licenses

The Longworth bill, which increases the tariff on imported dyes and carries a provision for a licensing system, as passed by the House confers the power of enforcing the plan to control importations upon the Tariff Commission. The original bill called for the appointment of a new commission for this purpose. Objections were raised to a commission which might comprise members who are competitors in trade of those applying for licenses. The protest of H. A. Metz was based on the point that an applicant for a license might find himself obliged to submit his needs to a rival dyestuff manufacturer, an importer of dyes, or a textile manufacturer.

Mr. Metz claims that the very fact that a man asks for certain dyes would indicate at once to a competitor just what kind of work he was intending to do. If a woolen manufacturer asked for certain cotton colors, or certain vat colors, it would indicate that he was going to make woolen goods, with a cotton stripe or a silk stripe, and his competitor would immediately get a line on what he planned to make for the following season. Mr. Choate contends that the purchase could be made by the manufacturer through an importer without disclosing his identity, and Mr. Metz replies that it is problematical whether the importer or dealer would be able to obtain a license from the commission.

Manufacturers who accept dye allocation certificates from the War Trade Section of the State Department must file sworn statements concerning the dyes received and consumed. A manufacturer must also state the amount of dyes he requires for consumption in his plant during the six months period Oct. 1, 1919, to April 1, 1920. Mr. Metz says on this point that the orders which a manufacturer has today for goods to be delivered six or eight months from now may be cancelled tomorrow, making it very difficult for anyone to estimate his needs. Opinions vary as to the wisdom of placing the power in the Tariff Commission. The question is one calling for technical and expert knowledge of the dyestuff and textile industries, and there is also the legal point that the commission is not authorized to conduct an administrative bureau. The members of the Tariff Commission will be more or less dependent upon the advice of experts and these men might be as prejudiced as so-called "competitors" and might make unfair use of the knowledge gained by reason of their position.

Most Curious Opposition

Opposition to arbitration of disputes arising out of sales and shipping contracts, which was proposed in DRUG & CHEMICAL MARKETS last week, has developed in a most curious and perverted form. If it were serious opposition, it would be discouraging; but, as it is not, it is merely distasteful. The points of view revealed by the different objections raised are most illuminating, and help us to understand why the courts are crowded with chemical suits.

A few manufacturers assume the holier-than-thou attitude. Two years ago, when Mr. McKerrow was working to organize the dyestuffs interests into an association, he pointed out the desirability of the standardization of colors and the arbitration of disputes, and this curious attitude flared up in the quick statement of the head dye salesman of one of the big manufacturers: "Why the devil should we arbitrate—we would always be right!" Possibly so—and yet, we do seem to remember that this same company was quite recently defendant in an international suit arising out of a sales contract. Other manufacturers can with no better grace cast the first stone against arbitration.

A few brokers choose to regard themselves the yellow dog of the industry, the poor, friendless canine which the chemical user holds firmly while the chemical maker ties a tin can to its tail. Such opposition as a few dealers raise to arbitration is based upon the self-pitying wail: "What earthly chance would the honest broker have in arbitrating sales contracts?" The insisting emphasis placed upon the adjective "honest" is significant, or rather contradictory, for the place of the reliable dealer and sales agent in the distribution of chemical products is too well known to need any defense, and decisions from men familiar with chemical trade conditions would recognize the financial loss second hands suffer from delayed deliveries and rejected shipments more keenly than any court.

These curious forms of cpposition to arbitration of sales disputes are made "curiouser, and curiouser" by the approval which the proposal has won from the consumers of chemicals. It might be reasonably expected that they would assume the attitude that the buyer knows what he wants and pays for what he gets, accordingly, the buyer should not arbitrate. It would seem that they would be the very ones who would be suspicious of decisions rendered by arbitrators from the chemical industry. But the buyers upset both expectations and support the arbitration idea.

The Vegetable and Fatty Oil Industries

The development of the fatty oil industry in the United States during the war, and the growing imports of vegetable oils from the Far East are attracting nation-wide attention of capitalists and investors. In an article on the soap and candle trade, which appears in this issue of DRUG & CHEMICAL MARKETS, Charles V. Bacon predicts that this country will soon become a glycerin exporting nation rather than an importing one as we have been in the past. A branch of the fatty oil industry that has been developed successfully here is the manufacture of lubricating grease with the use of fatty acids owing to the large amounts available.

The series of articles by Major Bacon on the progress made in the soap and glycerin trade, and the manufacture of other products for which the fatty oils are used, will be followed by articles on the growth of the vegetable oil industry by I. F. Laucks, analytical and consulting chemist, of Seattle, an authority on the oils imported from China and Japan.

The use of soya bean oil and cake is interesting the Pacific Coast. Japan is the chief crusher and producer. China has developed the industry, and Mukden is the center of the bean trade. Its products are used as a food, a fertilizer, for lighting and lubricating purposes, and oil and cake are exported. At Seattle and San Francisco an immense trade is conducted in these products and large storage tanks have been built to handle the importations of oil now steadily increasing.

SITUATION NOT PROMISING FOR LABOR

The foreign trade situation is approaching a more precarious stage, although August exports at $646,000,000, were $76,000,000 greater than in July, and imports at $308,000,000 were $35,000,000 lower, says the National City Bank. The feeling, nevertheless, is that without more organization for the granting of credits this trade will not be sustained and that any falling off will bring a lower price level in this country.

The wise policy for the labor organizations to pursue is to quit their policy of trying to push wages higher, and make a study of how to hold the wage rates they have gained, looking for future gains to an increase in the purchasing power of the dollar. They should look now to increasing production. They should look after their position as consumers. They should seek to co-operate with employers in accomplishing a reduction of the costs per unit of product to what they were before the war. If they can achieve this, their new wage rates will be secure and represent real gains—a real increase of command over the necessaries and comforts they want. Otherwise they are chasing shadows, and may disorganize industry to such an extent that many of their number will be out of employment, and the cost of living will rise faster than wage advances to the others.

GERMAN COST PRICES INCREASING

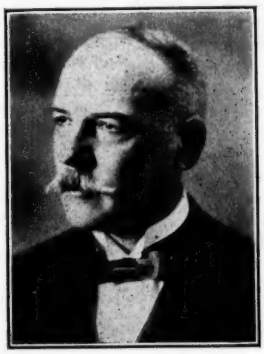
A well-known firm of Hamburg, Germany, drug merchants, in their market report dated Sept. 1, state that a number of imported articles appeared to have reached their high-price level, but it was probable that in domestic drugs a further increase in price would take place. In the meantime this assumption has become a fact. In addition to the well-known causes for this increase, such as repeated strikes, increased tariffs, increase in wages and the shortage of coal, the depreciation of the German mark abroad prevents any decrease in prices, says the "London Chemist and Druggist." The list of articles which show a decrease in price is very limited, and is confined only to a few imported goods, whereas the general tendency of articles of German manufacture indicates an increase in prices, and thereby seriously imperils Germany's chances of competing successfully.

Unequal Exchange Curtails Trade

European Manufacturers Unable to Get Raw Materials Without Extension of Credit Here

By ALEXANDER PHILLIPS, Vice-President Guaranty Trust Company of New York

IT is perhaps unnecessary to attempt to explain the present weakness in our market of bills of exchange on the most important European centers. Most business men know that, fundamentally, dealings in exchange are like dealings in any other commodity. The price is down when the commodity is plentiful, and goes up when the supply is not equal to the demand. Our exports to Europe have been for a long time so much heavier than our imports that the drafts on Europe created by our sales are much greater in their total than the drafts on us created by our purchasers. Europeans desiring to settle for their buyings here do not find the necessary exchange available. Hence there is a sharp bidding for dollars, and the price of the dollar rises and that of the pound, the franc, the lire, or the mark, as the case may be, falls. In normal times it is always possible to settle balances which cannot be handled by exchange by the shipment of gold bullion. Hence at such times exchange does not fluctuate much beyond the point where gold shipments become profitable. But today the free movement of gold is out of the question, and the wide disparity continues.



Mr. Phillips was born in India, and has had banking experience in India, England and France. He was organizer and manager of the Paris Branch of the Guaranty Trust Company of New York.

Exchange Rate Curtails Trade

This apparently simple situation is sufficient to upset the whole international distributive process, and its secondary results are wide-spread and profound, and react upon our own industry, and upon almost all our normal business activities. Our whole present system of production is built up to meet the after-war needs of the countries whose stocks have been depleted either by the war itself or else through the scarcity of goods which attended the war. Our continued prosperity depends upon our ability to dispose at a reasonable price of the product of our industry beyond our own consumption needs. Yet, at the very time that we are most anxious to sell and Europe is most anxious to buy, the disparity in exchange puts a burden upon the buyer which makes it impossible for him to buy except at a price—in terms of his own currency—which is well-nigh prohibitive.

Granted a continuance of four cent marks, nine cent franc and lire, and pounds sterling for $4.14 or thereabouts, what must American industry expect? Clearly, a rapid retreat from the markets where our influence should at the present time be most strongly felt. France and Italy cannot long afford to pay nineteen cents for eleven or twelve cents' worth of material. Even England, wealthy as she undoubtedly is, cannot look with favor upon a market which gives her only $4.14 worth of cotton for $4.86. Lessening of the demand for the products of our labor must curtail our output, throw our men out of work, reduce the income of those who remain, and slow down our industrial advance at the very time that we were hoping to make the most rapid progress.

From the European point of view the consequences would be no less disastrous. European industry, for its rehabilitation, upon which depends the economic stability of the whole continent, and indeed of the world, must have machinery, tools, food, all the appurtenances of production, and especially, and above all, the raw materials with which we are so prodigally supplied. But the price which the present rate of exchange demands that Europe pay for these things is simply out of the question. And even if they were willing and able to pay the price—which implies a lot—they could not pay if the dollar exchange were not available.

This in brief, and in general, is the international financial situation today, and it is toward its solution that the best business brains of Europe and America are constantly working. The daily fluctuations in exchange have little bearing upon the situation as it stands. They are due, primarily, to small speculation, to evidences of increasing productive capacity in Europe, the discounting of minor improvements or aggravations in the world status. The fundamental problem remains.

Effect of Larger Imports

How shall it be solved? The immediate and obvious answer to this question is that we shall import more European goods, thereby creating a demand here for European exchange, and thus raising the price of pounds, francs, lire and marks. That solution, however, involves many factors, and even if the way were clear, it would be the work of many years to bring our imports up to the point where trade would balance exactly, for it must be remembered that under such a plan not only must Europe pay us in goods or service for the goods which we export, but she must also pay us for the great loans our Government has already advanced. And if she lacks, as we have seen, the primary means of production, her factories certainly cannot supply her own wants and make payment to us as well. Until she is in the position to pay us, some other methods of meeting the situation must be found.

When an American plant finds it necessary to increase its output, either by the purchase of more raw material, or by plant enlargement, or by rebuilding, or by installing new machinery, the usual custom is to apply to its bank for credit or to sell in the open market its bonds or other certificates of indebtedness. The willingness of the bank and the public to extend credit is based upon their faith in the ability of the management of the plant to carry through its plans to successful conclusion, and to market the product at a profit. When the public—or the bank—is convinced of the financial stability of the would-be borrower, the money is forthcoming.

Europe today is in the position of the borrower in the typical instance we have just described. Her plants need money to increase their output. The world needs the goods they will produce. They have conducted their affairs in the past in such a manner that we cannot doubt their ability to carry on successfully in the future. Hence, as banks, or as individuals, we must listen with a ready ear to their plea for credit, and be prepared to accept, in place of actual cash, their promise to pay for the goods they are about to buy. Our position is particularly fortunate in that the money we are about to lend will be spent upon our own products, so that in addition to receiving a return upon our investment we shall likewise make the customary profit upon our sales.

Proper provision of credit for European industry at the present time will serve to correct the exchange situation because it will supply the dollars that Europe needs to buy its supplies in this country. The supply of dollars will be made equal, or nearly equal, to the demand. Buying will be possible upon something like a fair basis, and industry will be stimulated to the extent that increased consumption is made possible.

It will be objected, beyond a doubt, that lending Europe money can be but a temporary expedient and that ultimately Europe will have to pay. Europe will have to pay, of course. But by lending her money we make it possible for her to pay, not merely her present borrowings, but the accumulated debts of the past five years. When European production is again at its height, the debt to the United States will be carried and eventually paid off just as the debts of American industry are paid off, and with as little friction or strain.

Must Invest Abroad

The solution which is here described, and which, it is generally admitted, is the only solution for the present tangled situation, involves a great extension of our banking facilities, a closer relation between Government and business, and above all, it demands a broader point of view on the part of our investors, business men and manufacturers, and the public generally. It means that our isolation is past, not only politically, but in every economic and business relation, that in casting up our national accounts we must take into consideration, as Great Britain has long done, the fluctuations of progress in every quarter of the globe. We shall have a stake, more or less permanent, in every region in which we have invested our wealth, and in every region which supplies the raw material to the countries which we have financed. And with this additional burden, our new adventure will involve broader opportunities. The investment of our funds will be confined not to domestic issues, but to every issue which may be bought in the world market. Our banks will inevitably follow the lead which has already been set by a few of the larger institutions, and participate as freely in international transactions as they now participate in the shipment of cotton from Alabama to Fall River.

FAILURES IN NINE MONTHS

Exclusive of banking and other fiduciary suspensions, failures in the United States during the nine months just ended, as reported to R. G. Dun & Co., numbered 4,856 and involved $88,941,608 of liabilities as against 8,069 defaults for $122,975,024 in 1918, and 10,737 for $141,950,038 in 1917. In the first nine months of 1916, there were 13,250 insolvencies for $154,586,707, while in 1915—the high point in number of failures—there were 17,288 business suspensions, supplying $241,464,060 of indebtedness.

CONDITIONS OF SALES IN BUENOS AIRES

At the request of the United States Exporters' Association in Buenos Aires, Consul General Robertson, of Buenos Aires, Argentina, has transmitted the English translation of the general conditions of sale adopted by the United States Exporters' Association in Buenos Aires when taking orders in this market for American products.

1. On orders taken at c. i. f. prices, the price includes the cost of the merchandise placed on board vessel at the port of shipment, freight, marine insurance, and other minor expenses to port of destination. The obligation of the shipper with regard to delivery ceases as soon as the goods are shipped. The merchandise travels for account and risk of the buyer, and the shipper assumes no responsibility for its arrival at port of destination or for any damage it may suffer during the voyage or during discharge.

2. The conditions of the bills of lading and of the insurance policies which cover the goods detailed in this order form part of said order.

3. The shipper is not to be held responsible for any unexpected contingencies or any cases of "force majeure" and without prejudice to the generality of this stipulation, the shipper is specially exempt from responsibility in case of strikes, floods, fires, accidents, delays, or other difficulties in transportation to seaboard or ocean transportation or in case of interruptions of these services by acts of government or other competent authorities, or delays in the departure of vessels, or any other causes beyond the control of the shipper; all unexpected expenses, such as cartage, railroad, freight, storage, fire insurance, etc., are to be for account of the buyer.

4. In case of war the shipper may insure the goods against war risks for account of the buyer without the necessity of consulting the buyer.

L. A. AULT RETURNS FROM ORIENT

L. A. Ault, president of the Ault & Wiborg Company, and his brother, L. D. Ault of the Ault Woodenware Company, Cincinnati, have returned home from a six months' business tour of the Orient.

"This was my third trip in twenty-three years," said L. A. Ault. "Since my first visit, the cost of living in Japan and China has increased fivefold. I want to say that nowhere in the world can a man get as much and as good food for a dollar or its equivalent, as he can in the United States."

"What is the feeling in China over the Shantung matter?" Mr. Ault was asked.

"The Chinese think they have been robbed of territory and are bitter against the Peace council, which refused to restore it to them."

When asked whether he thought Japan would restore Shantung to China, Mr. Ault said:

"Never in the world unless they are forced to do so."

"Recovery of Zinc from Low-Grade and Complex Ores" is the title of a pamphlet issued by the Department of the Interior, Bureau of Mines. It was prepared by Dorsey A. Lyon and Oliver C. Ralston.

Supplies of senna in London on Sept. 1 amounted to 5,857 packages. This compares with 8,788 packages on the same date last year and 9,413 packages on Sept. 1, 1917.

Quicksilver imports at London during August were 5,063 bottles, making 27,664 bottles for eight months. The re-exports in August were 3,627 bottles, making an aggregate of 18,674 bottles for the eight months.

Growth of the Fatty Oil Industry

Soap Manufacturers Developing the Foreign Field and Making United States a Glycerin Exporting Nation

By MAJOR CHARLES V. BACON, formerly Chief of the Research Section of the Engineering Standardization Branch of the General Staff of the Army.

IT IS not only surprising but extremely gratifying, to consider the vast increase of our fixed or fatty oil industry. During the war producers and consumers doubtless felt, in many instances, that the specific information required by the Interdepartment Committee on Fats and Oils, co-operating with the United States Food Administration, on stocks, supplies and distribution of these materials, was a hardship, and, as far as could then be seen, unnecessary. However, after the signing of the armistice, with the prospect of a resumption of normal business conditions, it was found that the system of constant checking and controlling these commodities had succeeded in providing the industries with ample stocks, sufficient, in fact, to enable them to supply both foreign and domestic requirements. By co-operation with the various boards, this committee secured the proper shipping facilities to make it possible for crushers and refiners to obtain the necessary raw materials. This, in turn, caused them to install modern and additional machinery and apparatus with which to utilize this material. This was a decided advance, and gave the manufacturers the necessary confidence to allow them to demonstrate to the satisfaction of the consuming trade their ability to produce edible and soap oils that would compete favorably in price and quality with imported products of a similar character.

MAJ. CHAS. V. BACON

The soap and candle industries will undoubtedly profit by the advance made in the fixed oil industry. The large demand for imported castile and fancy soaps, which existed prior to the war, met with small competition from our own manufacturers, this being due, no doubt, to the ingrained prejudice of the public, who, knowing no better, think any imported articles to be superior to those of domestic origin. During the war, when the importation of these products was noticeably curtailed, our markets were amply supplied and to the satisfaction of all concerned. This applies particularly to castile soap, the imports of which were reduced about 75 per cent during 1918. This will undoubtedly give an added impetus to domestic production, as it has demonstrated so thoroughly that soap of our own manufacture, and containing as essential ingredients materials produced in this country, meets all requirements.

The amount of soap exported from the United States, other than fancy and toilet, has shown a gain. The pounds of fancy and toilet soaps exported since 1914 are not available, but the value remains comparatively constant, showing that little or no progress has been made along these lines. In other soaps, however, there has been a consistent increase, which, since the beginning of the war in Europe, has amounted to about 90,000,000 pounds. It is evident, from the foregoing, that our soap manufacturers are alive to the opportunities which are now presenting themselves and will develop, to the full, the foreign field. This will be easier of accomplishment since our supply of soap-making oils is more constant than in former years. In addition to this, the installation of units of equipment to more completely recover the glycerole is a further asset.

Glycerin recovery, a necessity due to the emergency, has been of great monetary benefit to the soap industry, and while the imports of crude glycerin since 1915 show a very marked decline, it is encouraging to note that in 1918 we made our first large export, amounting to over 21,000,000 pounds. This is more than 60 per cent of the amount imported any year since 1912, and the fact that this has been accomplished within two years points very strongly to our becoming a glycerin exporting nation rather than an importing one as we have always been in the past.

Washing powder and fluids, the exports of which are not, unfortunately, recorded separately, show a gain from 1912 to 1916, but thereafter a marked decline. This was due, probably, to embargoes and unsettled conditions. Shipments decreased to England and Scotland, who were our largest individual purchasers. This accounts for our limited exports during the last three years, and it is quite likely that, with stabilized conditions, this business will again recover its former activity. The candle industry has shown a decided increase in exports from 1912 to 1917, with a slight decrease in 1918. The consumption of candles is chiefly in North America, where 90 per cent of our exports are shipped, the largest individual buyer being Cuba. It seems quite probable that South America, if properly exploited, would offer a profitable field. Another field open to the candle industry for the disposal of fatty acids is in the manufacture of lubri-

Soap, Washing Powder and Candle Exports

	Candles	Washing Powder and Fluid	Soaps	Fancy and Toilet Soaps
	Pounds	Pounds	Pounds	Dollars
1912	2,782,439	8,287,197	57,855,457	1,840,037
1913	2,595,905	9,230,700	51,292,954	2,132,663
1914	3,047,756	12,761,958	58,546,763	2,141,633
1915	4,230,026	14,695,317	63,367,750	1,777,342
1916	6,120,695	7,855,317	75,548,686	2,610,481
1917	6,576,632	3,517,032	73,048,579	2,122,674
1918	5,530,017	4,754,084	82,726,757	2,246,258

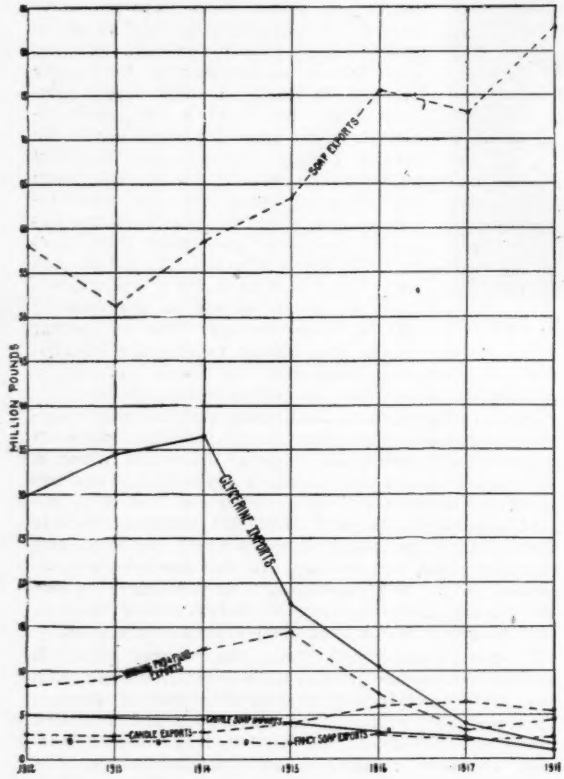
Crude Glycerin and Soap Imports

	Crude Glycerin	Castile Soap	Other Soaps
	Pounds	Pounds	Dollars
1912	29,933,320	4,960,410	405,318
1913	34,413,507	4,833,269	403,734
1914	36,409,619	4,622,682	460,485
1915	17,620,509	4,079,132	407,169
1916	10,621,403	3,196,640	281,954
1917	4,122,410	2,428,993	280,577
1918	1,875,531	1,016,399	211,859

cating grease, which is a combination of soda, lime or metallic soap with mineral oil.

Prior to the war it was customary to use a fixed fat or oil as the soap-making material, but with the vast increase in our glycerin production and the large amounts and variety of fatty acids available, this industry began using fatty acids more intensively. Due to this new departure, the Government changed the specifications for lubricating grease and now accepts products made from fatty acids, thereby releasing quantities of fats and oils, which, if used in the manufacture of lubricating grease, would not have permitted the recovery of glycerin. Lubricating grease made, using fatty acids as the soap base, have been used and

IMPORTS AND EXPORTS OF SOAP PRODUCTS



found satisfactory. It is, therefore, only fair to assume that this industry will continue, and that in a short time the few who doubt the wisdom of anything new, will discard their antiquated ideas and become converts.

JAPAN'S CHEMICAL STRIKES IN 1918

In 1918 there were 36 strikes in Japanese chemical works involving 4,818 men. In 1919 there were 31 strikes in which 2,859 men took part, and in 1914 only two strikes by 238 men. Japanese laws regarding agitators and unions are very severe, according to the "World Salesman," which says that any combined action by workingmen is prohibited, and leaders are locked up. The Peace Police Law has a provision that any instigation or urging to join in combined action is prohibited and subject to corporal punishment. In 1918 when there were 417 strikes involving 66,457 men there were 375 arrests and 63 convictions; 239 men were released with warning.

Pacific Coast Notes

The Franco-American Hygiene Co., of Chicago, Ill., is preparing to establish a branch factory at San Francisco for the manufacture of perfumes. A retail store will also be opened.

The Universal Conservation Company, of Los Angeles, has asked permission to make a scientific salvage of the garbage of the city of Oakland and has offered to erect a $100,000 reduction plant.

Skippers of vessels which have arrived at San Francisco, Cal., from the South Seas of late declare that there is a considerable shortage of copra there. Many natives died of influenza during the present year, and this left a shortage of labor to handle the crops.

Receipts at San Francisco during the last week in September included the following: On the steamer Nanking, from the Orient, antimony, 500 pounds; cinnamon, 2,100 packages; green ginger, 85 packages; peanut oil, 4,220 cases; wood oil, 150 cases; soya bean oil, 150 cases, and tapioca flour, 281 packages. The City of Para brought 269 packages of indigo from Central America, the San Mateo brought 36 sacks of quinine bark from Salina Cruz and the Persia Maru 200 packages of cocoa beans from Hongkong and way ports. Shipping is being interfered with by a strike of stevedores and is largely at a standstill.

PRICES OF ACIDS IN JAPAN

(*Special Correspondence to* DRUG & CHEMICAL MARKETS)

Tokyo, Japan, Sept. 18.—Boric acid and borax have been advancing actively for some time on account of substitution of cargo and the scarcity of selling offers. Boric acid is quoted at yen 50 per 100 pounds and borax at yen 27 per 100 pounds.

Acids for the most part are unchanged. Carbolic acid is offered at yen 60 per 100 pounds, a decline of yen 5 since last week in spite of threatened cholera at Japanese ports. The revived importation from America is keeping the price down. Muriatic acid, acetic acid and sulphuric acid are staying at their old points; muriatic acid at yen 6.50 per 100 pounds; nitric acid at yen 16 per 100 pounds and sulphuric acid (66%) at yen 10.90 per 200 pounds and sulphuric acid (65%) at yen 8.60 per 200 pounds.

Sulphuric acid producers in Japan have made an agreement among themselves and established a common selling agency which may regulate the supply to the market and thus help in maintenance of price. The agreement is in force now, and the present prices will probably stand or perhaps rise.

Potassium muriate is another bright spot in the market, having soared to yen 38 per 112 pounds after stopping at yen 35 for some time. This is a side effect of the boom in the match trade, and further advance is expected. Bichromate of potash is now quoted at yen 51 per 100 pounds, having shot up from yen 45. A successful maneuver of producers to reduce the visible stock in the market is the direct cause of this sudden increase according to a prominent man in the local chemical market.

The War Department is offering for sale under bid 2,784 pounds of camphor, powdered. Bids should be mailed to the Zone Supply Office, Surplus Property Division, 461 Eighth Avenue, New York. They will be opened Oct. 20.

Trade Notes and Personals

F. J. McDonough, director of McKesson & Robbins, arrived last week from Liverpool on the steamship Carmania.

The Figaro Chemical Co., Dallas, Texas, manufacturers of a liquid product for canning meats, have chosen Savannah, Ga., for distribution of their goods in the South Atlantic States.

Charles A. Loring, manager of the New York office of Powers-Weightman-Rosengarten Co., has returned from his vacation, part of which was spent with his family at Hight Island, L. I. Sound.

W. E. Monroe, of the firm of Monroe & Leon, oil and chemical brokers, 15 William Street, New York, left recently on a trip to the Pacific Coast. Mr. Monroe intends to investigate the vegetable oil situation in the Middle West and at receiving points on the Pacific Coast.

Some one in the Lynn Grease Extracting Company's factory at Lynn, Mass., released a valve in a tank of grease and more than $15,000 worth of material flowed out, covering the yard, the sidewalks and the car tracks. Officials of the company say it was done by an enemy.

The American Manufacturing Exporters' Association, 160 Broadway, New York, will hold its annual convention at the Waldorf-Astoria on Oct. 16 and 17. Stanley F. Quinn, secretary, announces a programme which includes speakers known nationally in their respective industries.

Robert Terry, analytical chemist, has been made a member of the Import Drug Specialty Company at Cleveland, Ohio. Mr. Terry will have charge of the analytical and pharmaceutical laboratories of the company, and will also have supervision of production. Mr. Terry recently returned from a trip to New York City, where he addressed the American Pharmaceutical Association on "Notes on the Precipitation of Magnesium Hydroxide."

W. E. Simpson, engineer of the Cassel Cyanide Co., of Scotland has received word from Managing Director McNeil that the company will establish a plant in Canada to compete with the United States for the cyanide trade. Mr. McNeil writes that he has not decided on the location of the Canadian plant. He says a subsidiary company will be formed to take advantage of the opportunity that exists for the industry in Canada. Three members of the Glasgow directorate will be on the Canadian board. Sir George Beilby, who twenty-seven years ago invented the cyanide process will be one. Sir Edward A. Brotherton, another director, is a chemical manufacturer, owning several acid plants in England.

INVESTIGATE COTTONSEED OIL PRICES

Complaints that there has been manipulation of the price of cottonseed oil have led to the effort to secure an investigation of the industry. Representative Sanders of Louisiana has introduced resolutions on the subject, one providing for an investigation by the House Committee on Agriculture and the other directing the Federal Trade Commission to inquire into the cause of the great differential charged by the refiners of cottonseed oil between the crude oil and the refined product.

METZ'S SUIT AGAINST GARVAN MAY COME TO TRIAL THIS WEEK

Dye Manufacturer Seeks to Recover Stock of Farbwerke-Hoechst and Other Companies Taken Over by Alien Property Custodian—Statements by H. A. Metz and Francis P. Garvan

H. A. Metz has obtained an order from Judge Charles M. Hough of the United States Circuit Court requiring Francis P. Garvan, alien property custodian, to show cause why he should not be enjoined from taking over the stock of the H. A. Metz Laboratories in Brooklyn. The order is returnable on Friday, Oct. 10.

In a recent statement which Mr. Metz made to the Ways and Means Committee of the House occurs the following reference to the investigation of his properties by the Alien Property Custodian.

"In the case of the Farbwerke-Hoechst Company he has tied me up to the extent of about $400,000, and is holding in escrow the stock of two other companies pending the determination of the new directors of the Farbwerke-Hoechst Company, whom he appointed, as to claims it may have in these two companies. I understand that he is waiting for this report from the directors before he decides whether he is to carry out the demand for seizure made the day before the armistice was signed in November, 1918, and before any investigation of any kind had been made regarding either of these companies.

"The Farbwerke-Hoechst Company was finally taken over, and in the original proof of the Alien Custodian's report it was plainly said that no evidence had been discovered to suspect enemy interest in the other concerns under investigation. In the report, however, as finally made, this sentence was crossed out. While I have been left in absolute possession of these companies, and one of them has even been granted a license by the Chemical Foundation, with the request that I accept it in place of the one I held from the Federal Trade Commission, the stock is still in escrow and Mr. Garvan is still holding his club over me."

Referring to the demand for the surrender of his companies to the Alien Custodian, Mr. Metz says:

"After the service of the demand, by agreement the stock of the Farbwerke-Hoechst Company, as well as the stock of two other companies, was deposited in escrow, on the condition that when the report was made it should be handed back to me, and the demand for its surrender, if then considered justified, could be complied with or not as I then saw fit. It was fully five months after that before the report was made, and I know now that it was doctored up so as to warrant the demand which followed for the Farbwerke-Hoechst Company. Under the law, of course, I had no recourse except to submit under protest and begin suit, or take the chances of an indictment and prosecution under the Enemy Trading Act. That course had been pursued against some others, and although most of those indicted have been acquitted in the courts, still, to the average man an indictment of any sort is not pleasant. I, therefore, complied with the demand, on the conditions already stated, and am still waiting for the release of the stock of the two other companies, or the demand for their surrender, as provided under such agreement."

Mr. Garvan says: "We decided to demand a long time ago, and did demand, the stock of these companies. At their request we held up the enforcement of the demand until we heard the objections that had

been raised to this action, and until we made a fuller examination. At the conclusion of the hearing we decided we were right in the first place and that the stock was enemy owned.

"The enemy interest and Mr. Metz's interest are so mixed up it will require a hearing in court to decide where the line is. If it is found this stock is enemy owned, it will be held in this country, and it will be possible for Mr. Metz himself to secure entire control of the stock."

BRITISH EXPORTS OF COAL-TAR PRODUCTS

The British Board of Trade (Export Licence Department) desire to draw attention to the fact that the export of "coal-tar and derivatives thereof (except solvent naphtha, cresylic acid, and mixtures containing cresylic acid) suitable for use in the manufacture of dyes and explosives, whether obtained from coal-tar or other sources, and mixtures and preparations containing such products or derivatives," is still prohibited to all destinations. Certain coal-tar products, such as naphthalene and its derivatives, toluol and its derivatives, picric acid, xylol and its derivatives, carbolic acid crystals, anthracene oil, benzol and its derivatives, cresols (ortho, para, and meta) and their derivatives, were originally mentioned by name in the British list of prohibited exports, but these prohibitions have now been merged in the inclusive prohibition on the export of coal-tar products. The export of naphthalene, toluol, picric acid, and the other coal-tar products above-mentioned, should therefore be regarded as prohibited to all destinations, and applications for licences to export them should be addressed in the usual way to the Controller, Export Licence Department, 1, Queen Anne's Gate Buildings, Westminster, S.W. 1.

NEW DYE AND CHEMICAL COMPANIES

Twenty-two companies with an authorized capital of $50,000 or greater were organized during September for the manufacture and distribution of chemicals, drugs and dyes, involving a total authorized capitalization of $6,100,000, says the "Journal of Commerce." The indicated investment compares with $1,184,000 in September a year ago and with $12,925,000 in September, 1917. The aggregate is less than in any of the three preceding months and is the third smallest monthly total for any month to date in 1919. The number of companies formed, on the other hand, is well ahead of the average, comparing with fifteen in August.

PRICES OF GERMAN DYES

The War Trade Board Section announces that negotiations have been instituted with a view to securing German dyes at prices similar to those contemplated in Annex VI of Part VII of the treaty of peace with Germany. Intending importers will be advised promptly of such arrangements as may result from these negotiations, and of the method whereby holders of allocation certificates may avail themselves of the pending arrangements.

EASTERN DRUG COMPANY EXPANDING

The recording of final papers in the Registry of Deeds office in Boston gives indications that the Eastern Drug Company is to make extensive improvements and additions to its property. The company has purchased the property at 129-131 Cross Street, adjoining the company's plant, which is taxed for $93,000 and has also bought from the City Associates the property at 15-17 Barrett Street, next to the company's plant on the other side, with a taxed value of $9,500.

News of the Courts

John C. Wiarda & Co. have sued the Schell Chemical Co. in the Supreme Court for $11,000 for deliveries of soda ash in January last, and for losses alleged to have been incurred because of the refusal of the Schell Chemical Co. to accept carloads tendered in February and subsequent months. Wilbur, Norman and Kahn appear for Wiarda & Co. The Schell Chemical Co. says the misunderstanding was due to the fact that it was not specified in the contract whether the soda ash required was the "dense" or "light," and Wiarda & Co. delivered the "light" when the Schell Chemical Co. required the "dense." The Schell Chemical Co. also puts in a counter claim for soda ash sold to Wiarda & Co.

The General Chemical Co. has been sued by the Partola Mfg. Co. for failure to deliver 1,500 tons of blue vitriol. The General Chemical Co. has filed an answer through Steele and Otis declaring that the Partola Mfg. Co. refused to give shipping instructions. Howell, McChesney and Clarkson, on behalf of the plaintiff, obtained an order for the examination of a salesman of the General Chemical Co. regarding the system of handling shipping instructions, alleging that these were telephoned to the General Chemical Co.

The Nichols Copper Co. is suing J. C. Brown, Inc., for $2,745 on a shipment of copper sulphate.

ACCUSED OF WEIGHTING SPONGES

(*Special to* DRUG AND CHEMICAL MARKETS)

Washington, D. C., Oct. 7.—Twenty-five manufacturers of sponges are charged with unfair competition in formal complaints just issued by the Federal Trade Commission, in which it is charged that the defendants "loaded" sponges with such weight-increasing substances as glucose, molasses, epsom salts, sand or lead for the purpose of deceiving and defrauding the public by falsifying their weight.

The concerns are charged with purchasing raw sponges in Florida and other places, transporting them to their places of business, and there "loading, doping and saturating" them with the intent of selling them by the pound at fictitious weights. They are also charged with "knowingly and deceptively" purchasing and reselling loaded sponges. Consumers, it is pointed out in the complaints, cannot readily distinguish between unadulterated and doped sponges.

Answers are to be filed with the commission on Nov. 15.

A London report dated Sept. 17 says: "It was reported in July that a Peruvian estate owner had sold 800,000 acres of land on the upper reaches of the Amazon to a Japanese syndicate. A telegram just received states that the property is in the hands of the Hoshi Pharmaceutical Company of Tokyo, and that the immediate object of the purchase is extraction of forestal drugs, such as quinine."

The following are particulars of the stocks (exclusive of old metal and scrap) in England in possession of the Minister of Munitions on Sept. 1: Copper, 28,049 tons; spelter, G.O.B., 20,041 tons; spelter refined, 10,963 tons; aluminium, 10,232 tons; soft pig lead, 84,057 tons; nickel, 2,374 tons; antimony regulus, 3,386 tons. A proportion of the above stocks is already sold to the trade for forward delivery.

Foreign Trade Notes

A resolution was presented at the annual meeting of the Ammonia Soda Co., near Norwich, England, manufacturers of soda ash, calling for the liquidation of the company at the request of Brunner, Mond & Co., who hold the majority of the company's stock.

Owing to the death of its owner, Heer Ligtvoet, the factory for the extraction of alkaloids at Soekaboemi, Java, was forced to close. The "Algem. Landbouw-Weekblad v. Nederl. Indie" states that the firm of Geo. Wehry will probably take over this factory, and will also provide the necessary working capital.

In consequence of complaints of a dearth of quinine for the treatment of a new disease which has appeared in Kediri, the director of the Board of Health telegraphed to the Bandoeng Quinine Factory, Java, on June 14 for the immediate supply of 100,000 tablets of quinine, and on June 15 telegraphed another order for 200,000 tablets.

The Hoshi Pharmaceutical Company, of Tokyo, has decided to call a general meeting of shareholders soon when the amalgamation with the Osaka Pharmaceutical Company, recently floated, will be recommended. Upon this amalgamation being completed the Hoshi Pharmaceutical Company will increase its capital to yen 10,000,000.

The Food Controller of England has a temporary surplus of cotton and soya oil, and he has decided to release 5,000 and 6,000 tons respectively to the soap trade. The price to be paid by soap makers for the cotton oil is not to exceed £95 per ton net naked ex mill, and for soya oil the price must not exceed £83 to £87, according to packing. The Soap Makers' Federation has agreed to arrange for the allocation of the quantities.

The exportation of indigo to China and Japan having been resumed, the price in Madras has increased since January. A Government crop report estimates that 114,650 acres are now planted with indigo, compared with only 27,500 acres at the same period last year. The bad monsoon of last year hindered sowing, with the exception of Cuddapah. The general reduction in cultivation during 1918 is chiefly ascribed to the listlessness of the market in 1917, and the consequent difficulty in getting rid of old stocks.

NEW EXPRESS RULES IN DECEMBER

Preparations are being made to put the new express packing rules into effect on Dec. 10, the date authorized by the United States Railroad Administration, which recently approved the new requirements. The rules will not permit the use of paper wrapping for packages over 25 pounds, nor of ordinary paper boxes, wrapped or unwrapped, when the weight of the contents is over that limit. For shipments over 25 pounds, wooden containers, or fibreboard, pulpboard or corrugated strawboard containers of specified test strengths, are required.

The new express rules were modelled on those of the railroads and require the same kind of containers, except that in the express service a wider latitude is permitted in the size of the carton used. The new regulations are embodied in Supplement No. 5, to Express Classification No. 26, copies of which may be obtained at any express office.

U. S. COMPETITION IN SULPHUR SEVERELY FELT IN THE FAR EAST

Position of Japanese Producers Reported to be Precarious—Australia not Buying in Japan as Extensively as Before the War—Home Trade Also Depressed

(*Special Correspondence to* DRUG & CHEMICAL MARKETS)

Tokyo, Japan, Sept. 18.—The sulphur market is hopelessly depressed, and the producers' position is precarious. Some of them who are strong financially may stand the slump, but there are many who cannot. The average annual consumption in this country has been something like 23,000 tons, but it is feared that this year may see a decline of some size.

The export trade is even more depressed than the domestic business. The total value of exports during the first seven months of the year is estimated at yen 1,231,774 against yen 2,076,313 for the same period last year a decrease of yen 844,539. Some producers here attribute this decline in their export business to Australia's less active demand and America's competition here. Australia is reported to be sending inquiries after sulphur here, but very few of these inquiries mature into business. How much America's competition in Australia is responsible can not be stated, but it is at least believed in Japan that it is on the strength of America's offers that the Australian buyers stand so firmly for their own terms and do not mind if negotiations break down.

However, in the shipment to other countries there is also a decrease of no mean size. The destination of the shipments during the first half of the present year are given below in comparison with that for 1917:

Exported to	Jan. to June, 1919 Volume	Jan. to June, 1919 Value	Jan. to June, 1917 Volume	Jan. to June, 1917 Value
	Kin	Yen	Kin	Yen
China	764,432	36,240	703,737	33,735
Hongkong	507,422	20,923	419,551	15,130
British India	4,240,549	202,921	8,720,171	633,750
Dutch Indies	723,632	31,593	4,859,642	290,014
Asiatic Russia	5,843	515	3,440,390	305,579
Egypt	3,103,997	158,675	.....	.....
America	89,700	2,756	1,003,641	48,284
Australia	13,709,200	467,604	41,327,806	1,571,658
New Zealand	4,989	705	2,053,862	63,260
Other countries	339,889	23,099	4,015,771	177,413

Producers have tried to cope with the changing times by strenuous endeavors to reduce the visible supply and to decrease the cost of production. Although the latter endeavor has failed because increasing wages and declining prices offset it, the reduction in the visible stock is noticeable. The stock is almost down to the necessary amount. At present there is an exceedingly small amount of stock on hand; but this measure which has proved good help in the case of the copper smelters, zinc producers and others is failing to help sulphur men out of their difficult position.

As to their prospects, an operator said that they were quite in the dark. If the producers could not tide over the present depression, they must try other measures. The intermediate grade of sulphur is now nominally quoted at yen 70.00 per ton.

The American Cellulose Manufacturing Co. is busy with extensive preparations for the construction of an entirely new plant on the site of the industry now being developed at Amcelle, France. The cost will be in excess of $2,000,000 and may amount to $3,000,000. These developments are the result of a contract entered into recently by the Cellulose Co. with the Motion Film Co., of Pathé Freres, to manufacture all the films used by the motion picture concern. About 1,000 men and women are to be employed.

ENGLISH VIEW OF PROFIT SHARING

John B. C. Kershaw, a British Chemist, Discusses Plans Put in Practice in England, Germany and America—Castner Kellner Alkali Co.'s System

In discussing profit-sharing plans put in practice in England, the United States and Germany, John B. C. Kershaw, a British chemist, cites the case of Samuel Cabot, manufacturing chemist, of Boston, saying: "The system adopted is that of dividing portion of the profits each half-year among those employees who have qualified for participation; the sum paid to each being based on the aggregate amount of his weekly wages, during the previous half-year. The bonus is divided into equal parts, one of which is paid in cash, the other is deposited in a savings-bank, and is only drawn upon in case of sickness or death. The bonus has risen from 10 per cent to 21 per cent of the wages, since the scheme was inaugurated in 1895, and it is believed to be still in existence."

Declaring that one of the most pressing problems of the present day is that arising from the increased cost of food and other necessaries of life, and the consequent claim of labor in all countries for a larger share of the profits of industry, the article which appeared in the "London Chemical Age," says:

Fried. Bayer and Co., at Leverkusen, near Cologne, employed, before the war, from 5,000 to 7,000 persons, and the works covered an area of 556 acres. The housing scheme embraced the erection of 750 dwellings with small gardens, each house accommodating four families, and being let at a moderate rental. Two bachelor houses were also erected, in which unmarried men were lodged at a cost of 2½d. to 3½d. per day, and were fed at an inclusive cost of 1s. for breakfast, dinner, and supper. These are of course pre-war prices. Separate lodging was provided at a similar low cost for the women-workers, a large number of whom were employed in the packing department of the works. Dining-rooms were provided for those who lived off the Estate, and here a substantial dinner could be obtained at a cost of 4½d. The firm had its own private water-works, capable of supplying 13¼ million gallons per day. The sanitary arrangements were exceptionally well-planned and elaborate, many hundreds of bathrooms being distributed amongst the various departments of the works. The workpeople received medical attention free of charge. A practical scheme of apprenticeship was provided for the sons of the workers; and a library, gymnasium, concert-hall and beer-garden were among the attractions provided.

As regards the system of profit-sharing adopted in some of the large German color and pharmaceutical product manufactories, the firms as a rule paid their skilled chemical workmen and staff a fixed wage or salary, and a bonus depending upon the profit made in the particular department of manufacture in which they were employed. The fixed wage or salary was ridiculously small compared with the British or American pre-war standards. Chemists and engineers could be obtained, in fact, from the universities and technical schools, by the offer of salaries of £80 to £100 per annum, owing to the opportunities for advancement which existed. The bonus payments to those engaged in the manufacturing departments of the works, and the royalty payments to those engaged in the research laboratories of course supplemented these low fixed salaries; but, even then, the total salary was very low judged by British or American standards, and this accounted for the low costs of production. Whether the revolution and social upheaval in Germany will deprive her of this great advantage in the manufacture of synthetic dyes and drugs, remains to be seen; but it is obvious that in a process where skilled chemists and engineers are required by the hundred, the scale of salaries paid to the skilled staff must be the most important factor in the economic success of the industry.

At the Thann and Mulhausen Chemical Works, one of the older and smaller German independent chemical companies, employing before the war 300 workpeople, a profit-sharing scheme on the ordinary lines was introduced in 1854. This was never very successful, owing to the very small addition to the wages which resulted,—for between 1854 and 1900, only £26,000 was paid to the staff and workers, under this scheme. In the opinion of the heads of this firm, their experience proved that a profit-sharing scheme is useless, unless it adds at least 10 per cent to the normal wages of the workers. Since 1900, therefore, a bonus system of payment has been substituted at this works. Under this system, the worker is paid the ordinary standard wage, plus a bonus depending upon the regularity of his attendance and efficiency of his work.

In England, the Castner Kellner Alkali Co., in 1908, introduced a scheme of profit-sharing into their works, and continued it for many years with success; but under the stress of war conditions and demands for higher wages, it has been dropped temporarily. The scheme was based upon the payment of a 6 per cent. dividend upon the ordinary shares, the surplus profits remaining (after payment of this dividend and of all fixed charges) being divided equally between the ordinary shareholders and labor, in proportions based on their holding of ordinary shares, and the annual sum received as salary or wages, by each employee of the firm. The scheme was applied to all servants of the company who had been twelve months in their employment, and had given satisfaction to the managers.

BRITISH AMMONIA OUTPUT LESS

The subsidy awarded to British manufacturers of sulphate of ammonia during the war has been withdrawn, and fertilizer interests are disturbed by the fact that production has fallen off. The output was 6 per cent less in 1918 than 1917, which was ascribed in the main to the poor quality of coal which has been and is still being served out to the carbonizing undertakings, says the "London Chemical Age." The promise of any increase in production in the near future is not, moreover, very great, for it would seem that the day is not far distant when a so-called "low-grade" gas will be generally distributed by the towns' gas undertakings, and such a policy means that far less coal will be required per volume of gas distributed. Less coal, of course, means less ammonia, unless some method is devised for very substantially increasing the nitrogen of the coal recoverable in the form of ammonia. As an auxiliary source there is always the synthetic product to be considered, but as our policy in this direction appears to be one of continual drift it is difficult for the moment to take it seriously.

John Clarke & Co. said of mustard seed: "The expected has happened and an urgent trade demand that could no longer wait swept up nearly all of the visible supply here in New York. The trading was mostly in the Oriental sorts, but the labor troubles in Denmark and the transportation strike in Great Britain are expected to delay or prevent the shipment of much needed supplies from that direction."

News of Companies

W. P. Schaap, Clarksville, Miss., is considering plans for the erection of a new plant at Hopkinsville, Ky., for the manufacture of medicinal preparations.

The Organic Salt & Acid Company, Newark, N. J., has filed plans for alterations and improvements in its steel and concrete factory building, to cost about $12,000.

The William H. Floyd Company, importers of Oriental vegetable oils, have moved to larger quarters in the Robert Dollar Building, 311 California Street, San Francisco.

A. Hollander & Sons, East Kinney Street, Newark, N. J., operating a dye works, have awarded a contract for the construction of a new one-story factory, to cost about $10,000.

The Jarecki Chemical Company, Sandusky, Ohio, has taken bids for the construction of a new one-story addition to its plant on First Street, to cost $20,000. G. Jarecki is president.

The firm of S. Wolff & Co. has opened offices at 341 Montgomery Street, San Francisco, and will engage in the importing and exporting business, specializing in Oriental products.

The Mint Products Company, 949 Broadway, New York, has completed plans for the construction of a new four-story reinforced-concrete plant, to be located at Portchester, N. Y., to cost $350,000.

The Mathieson Alkali Company, Niagara Falls, N. Y., is planning for the erection of new works for the manufacture of ammonia by a new process, with machinery and equipment to develop a capacity of about ten tons per day.

ODD USES FOR COTTON

The use of cotton in making "shell" spectacle frames, umbrella handles, hair barrettes, "shell" hair-pins, ornamental combs including side and back combs, novelty buttons, belt buckles, bracelets, coverings for shoe eyelets, covering for Cuban or military heels and for French heels, "shell" tops for handbags, etc., involves complicated processes. The cotton is first converted into fine white tissue paper. This is threaded, dried and dusted; then immersed in a mixture of nitric and sulphuric acid. This causes a chemical change which renders the cotton soluble in camphor and alcohol. The water is pressed out of the material which is then ground and in ground form mixed with certain stabilizing materials. This dough-like mass is next kneaded between huge rollers, then molded into cakes under hydraulic pressure. The cakes are sliced into sheets and hung up to season. Sharp dies then cut the material into final form, after which any necessary shaping, finishing, polishing and drilling is done. The varying colorings seen are the result of adding dyes of desired shades when the material is in plastic form. Possibly the most common colorings are the imitation tortoise shell, pearls and imitation ivory in the natural tint.

Silver was quoted in New York last week at the new high price of $1.20¾. Quotations in London advanced to 64¼d. The unusually heavy demand for the white metal is evoking predictions that it will soon be selling on a par with gold.

GROWTH OF BRITISH CHEMICAL TRADE

Report by U. S. War Trade Board on Exports and Imports of Heavy Chemicals from 1914 to 1918—Formerly Dependent on Germany for 90 Per Cent of Synthetic Dyestuffs and 70 Per Cent of Potash Compounds

(*Special to* DRUG AND CHEMICAL MARKETS)

Washington, D. C., Oct. 7—Considerable attention is devoted to the chemical industry in a report just issued by the War Trade Board through the Department of Commerce upon the economic position of the United Kingdom. This report, prepared by William A. Paton, goes exhaustively into all phases of the economic situation of today, as compared with that of pre-war times.

"The effect of the war upon British trade and production has been tremendous, but hardly revolutionary," it is declared in the introduction to the report. "To a very considerable extent the industrial equipment of the United Kingdom has been converted to the production of war materials. This has not meant any revolutionary change with respect to the character of the output of fundamental materials; the output of the normal lines of more highly specialized products, however, has been sharply curtailed, almost without exception."

After taking up in detail the various other industries, the report has the following to say in regard to conditions in the chemical field:

The British formerly depended upon Germany for 90 per cent of their synthetic dyestuffs and about 70 per cent of the total importations of potash compounds. The failure of these importations with the outbreak of the war left a very large number of British industries in an embarrassed, if not precarious, position. The most important process developed during the war was the manufacture of potash from blast-furnace dust. This process has been advanced beyond the experimental stage, and late in 1918 it was estimated that 50,000 tons of potassium compounds per year could be produced in this way, enough to supply practically the entire needs of the country.

Harrison Watson, Chief Trade Commissioner for the United Kingdom, in an article concerning the restoration of British industries from their former dependence on Germany (reported in the Weekly Bulletin of the Canadian Department of Trade and Commerce, Oct. 14, 1918), states that the dye situation is at present fairly satisfactory with respect to the cheaper dyes of the sulphite and azo class, but that much remains to be done, and a long time may be expected to elapse before the finished organization of the German dye industry can even be approached.

Several special branches of the chemical trades have received a tremendous impetus during the war. Among these is the manufacture of sulphuric acid. This product has been essential in the manufacture of munitions, and the output has been increased until, late in 1918, as reported in the Board of Trade Journal (British), issue of October 3, 1918, the rate of output reached a level of 1,800,000 tons per annum.

The exports of British chemicals, drugs, and fertilizers are widely distributed. In 1913 France took 14 per cent of the total of chemicals, so called; 13 per cent went to the United States; Spain received 9 per cent; 5 per cent of the total was shipped to Australia; and Germany, India, Argentina, Holland, Canada, and other countries received important quantities. The distribution in 1917 by leading countries was, roughly, as follows: France, 30 per cent; British India, 9 per cent; South Africa, 7 per cent; Russia, nearly 6 per cent; Australia, 5 per cent; and the United States, only 4 per cent.

The following table shows the imports of chemicals for the years 1914-1918:

THE UNITED KINGDOM'S IMPORTS OF CHEMICALS, DRUGS, DYES, AND FERTILIZERS

(Hundredweights, unless otherwise noted; 000 omitted)

	1914	1915	1916	1917	1918
Chemicals:					
Acetate of lime	84	101	68	43	
Acetic acid	77	103	58	104	89
Acetone	47	115	51	125	
Borate of lime	281	389	341	232	
Brimstone (sulphur)	435	711	680	589	1,454
Carbide of calcium	575	521	489	376	517
Coal products, not dyes	131	54	34	42	15
Cream of tartar	66	54	36	38	39
Glycerin	100	136	55	23	93
Saltpeter (nitrate of potash)	209	276	439	397	383
Soda compounds	208	192	153	122	93
Tartaric acid	40	34	35	15	14
Drugs:					
Peruvian bark	33	20	27	33	29
Opium[1]	860	951	694	819	(2)
Quinine and quinine salts[3]	1,868	4,581	3,727	5,019	2,380
All others[4]	1,237	2,302	2,952	2,277	2,514
Dyestuffs and tanning materials:					
Cochineal	2	2	6	..	..
Cutch	59	91	131	47	59
Alizarine and anthracene dyes	32	..	..	..	..
Aniline and naphthalene dyes	192	5	..	..	..
Synthetic indigo	15	6	..	..	..
Dye extracts[4]	138	346	671	1,102	783
Indigo	5	25	30	13	5
Bark for tanning	846	761	572	415	710
Extract for tanning[4]	972	1,899	3,309	1,862	2,428
Gambier	141	208	185	130	131
Myrobalans	560	778	861	674	748
Sumac	152	143	124	93	125
Valonia	362	142	134	34	124
Dyewoods[5]	16	29	21	14	(2)
All other dyes and tanning materials	173	344	334	360	242
Fertilizers:[5]					
Basic slag	16	..	..	..	..
Bones	34	27	27	3	5
Guano	39	26	21	2	..
Nitrate of soda	171	131	20	1	..
Phosphates	562	374	333	276	464
All other fertilizers	102	19	16	2	..

[1]In pounds. [2]No data. [3]In ounces. [4]In pounds sterling. [5]In tons.

The following table gives the exports of chemicals of British manufacture for the period 1914-1918:

THE UNITED KINGDOM'S DOMESTIC EXPORTS OF CHEMICALS, DRUGS, DYES, AND FERTILIZERS.[1]

(Hundredweights, unless otherwise noted; 000 omitted)

	1914	1915	1916	1917	1918
Chemicals:					
Aluminous sulphates	316	414	376	301	(2)
Bleaching powder	599	491	173	58	54
Carbonates of ammonia	56	53	78	35	(2)
Sulphate of copper[3]	67	65	38	47	47
Cyanide of potassium or sodium	160	224	244	230	(2)
Disinfectants, etc.	363	370	444	331	(2)
Coal products not dyes[4]	2,028	2,218	2,789	3,130	2,896
Glycerine	132	234	120	98	61
Muriate of ammonia	91	84	82	84	44
Potash compounds	55	28	23	17	20
Soda ash	3,575	4,362	3,138	3,205	3,377
Soda bicarbonate	509	555	661	499	427
Soda caustic	1,488	1,116	583	451	641
All other soda chemicals	1,612	1,543	1,349	1,155	1,293
Sulphuric and tartaric acids	104	52	31	38	25
All other chemicals[4]	1,397	1,858	2,710	2,933	(2)
Drugs:					
Morphia and morphia salts[5]	504	295	225	124	(2)
Quinine and quinine salts[5]	1,477	2,412	1,659	736	406
All other drugs[4]	1,999	2,654	3,974	2,923	(2)
Dyestuffs:					
Products of coal tar	46	36	58	74	93
Other sorts	175	172	122	62	21
Fertilizers:[3]					
Basic slag	132	117	38	1	1
Sulphate of ammonia	313	293	259	62	19
Superphosphates	66	68	14	3	2
Unenumerated	127	60	50	27	37

[1]Annual (and Monthly) Statements of Trade of the United Kingdom. [2]No data. [3]In tons. [4]In pounds sterling. [5]In ounces.

According to the above table, the exports of nearly all these items have declined during the war. The important exceptions are cyanide, soda ash, coal products other than dyes, "all other chemicals," and "all other dyes" (a value increase in the case of the last three items). The exports of fertilizers in 1918 total less than 10 per cent of the pre-war level. This decline in the export chemical trade coupled with the increased imports has meant that, while domestic exports of these commodities in 1913 totaled 180 per cent (in value) of all imports of this class, in 1918 domestic exports amounted to only about 60 per cent of the imports of that year.

INSTITUTE CHEMICAL COURSES ENLARGED

Chemistry is a required subject in all fifteen courses at the Massachusetts Institute of Technology, for which a fund of $10,000,000 is being raised. The degree of B.S. is given for chemical specialization along four separate lines—Chemistry, Chemical Engineering, Electrochemistry and Engineering Administration. The course in Chemistry provides broad fundamental training in inorganic, analytical, organic, theoretical and industrial chemistry, in both class-room and laboratory. It aims to prepare its graduates to take a responsible part in the establishment or development of industries which involve an application of chemical principles, to act as consulting chemists, to deal with problems of public welfare, to engage in research or to become teachers. The optional subjects afford an opportunity for specialized practice in such subjects as water supplies, foods, oils, gas, sugars and starches, and methods of proximate technical analysis.

The course in Chemical Engineering has a different purpose. The efficiency of any industrial chemical process depends not only upon a knowledge of the chemical reactions forming the basis of the process, but also upon a knowledge of the mechanical principles upon which depend the design, construction and maintenance of the plant for carrying on these reactions. To prepare students capable of filling the demand for men competent to build and operate manufacturing industries is the purpose of this course in Chemical Engineering.

A five-year course in Chemical Engineering is also offered including a course in the School of Chemical Engineering Practice. In the latter five stations for instruction are located in selected plants of five representative industries, each station being in charge of a member of the faculty and fitted with the necessary analytical laboratories, testing and measuring apparatus, and drafting-room facilities. Each student remains in each station for a period of six weeks.

The course in Electrochemistry aims primarily to prepare students to enter the various electrochemical and electrometallurgical industries which are being rapidly developed at the present time. There is also a fourth course that of Engineering Administration, which offers the opportunity of specialized chemical training from still another angle. The chemical engineering option in this course gives students the information and training necessary to prepare men to deal with the economic administration rather than with the scientific development and control of the processes involved in the industries devoted to the manufacture of materials such as textiles, paper, leather, rubber, fertilizer, iron and steel, foods and chemicals.

An important process for producing sulphuric acid is announced whereby the intervention of nitric acid is involved. The process is conducted by distributing the liquids entering into reaction with gases over the surface of a permeable diaphragm, so as to form a layer of liquid. The gases entering into reaction with the liquid pass through the layer of liquid under conditions which prevent substantial percolation of the liquid.

A report on tin in 1918, by Adolph Knopf, has just been published by the United States Geological Survey, Department of the Interior, as a chapter of Mineral Resources for 1918 and can be obtained free of charge on application to the Director of the Survey at Washington.

WHEN ESSENTIAL OILS ARE SHIPPED

The following table, printed in the Perfumery Record Year Book, shows the times the new crops of essential oils are available for shipment:

OILS

Aniseed: September-November.
Bergamot: December-March.
Bois de Rose: January-June.
Caraway: August-October.
Citronella, Ceylon; September-March.
Clove: January-March.
Geranium, Bourbon (three crops): January-March, October-November, May-June.
Geranium, African: May-July.
Juniper Berry: September-December.
Lavender, English: August-September.
Lemon: November-March.
Lemongrass: August-December.
Lime: July-November.
Linaloe: January-May.
Orange (Sicilian): October-December.
Palmarosa: September-December.
Pennyroyal, Spanish: May-July.
Peppermint, American: September-November.
Peppermint, English: August-September.
Rose (Otto): June-July.
Rosemary, Spanish and African: May-July.
Spearmint, American: September-November.
Vetivert, Bourbon: May-June.

SOUTH OF FRANCE FLOWERS

Violet and Jonquil: February-April.
Rose and Orange Blossoms: May.
Orange Leaves: June.
Thyme and Rosemary: May-July.
Jasmine, Tuberose, Lavender: August-October.
Spike Lavender: October-November.
Rose Geranium: September-October.
Cassie: October-November.

LAVENDER FLOWER OIL SCARCE

Close upon announcement from the essential oil trade in New York that a shortage of lavender flower oil is pending, owing to the smallness of supplies and the beginning of a very active demand, comes the following news item which appeared in the "London Chemist and Druggist" recently:

The crop of French flowers has proved to be rather larger than the average, but in spite of the increased production, the prices remain very high, and the hitherto unknown rate of fr. 80 per 100 kilos. was paid. Later the harvesters who went higher up the Alps secured a greater quantity of flowers, and the price fell. Contracts for oil have been made at from fr. 100 to fr. 130 per kilo., according to ester percentage; prices are likely to be uncertain until the next annual lavender-oil market at Digne. There appears to be very little oil left over from last year, and buyers do not appear able to satisfy their customers' wants, even though the price asked may be excessive. The price of new crop works out at about the equivalent of 48s per lb. in the South of France.

PRICES OF CHEMICALS IN GERMANY

A report on the German chemical market states that a majority of the works are only covering their most urgent requirements. There has been a considerable decline in prices for products which can be imported and of which quantities have already arrived, such as tartaric products (cream of tartar, tartaric acid) and caustic soda. On the other hand, the German works were obliged to make a further advance owing to the scarcity of raw materials and fuel, and demands for higher wages. This applies notably to bromine salts, barium chloride, antichlor., etc., for which there is strong home demand. The prices of all export products have risen considerably above the home works' quotations, with the consequence that in the open market permanganate of potash is considerably above the works' price and is very scarce, as only limited quantities can be produced.

Books of Trade Interest

THE CONDENSED CHEMICAL DICTIONARY. A reference volume for all requiring quick access to a large amount of essential data regarding chemicals and other substances used in manufacturing and laboratory work. Compiled and edited by the Editorial Staff of the Chemical Engineering Catalog. F. M. Turner, Jr., Technical Editor; Assistant Editors, D. D. Berolzheimer, W. P. Cutter and John Helfrich. 8 vo., 525 pages, New York. Chemical Catalog Company, Inc.

This book is sure to be appreciated by a large number of people in various branches of trade who have to use or buy or sell chemical products, as it will give them in most cases just the information they are seeking about such articles. For instance, the importer may have on hand a large amount of a certain chemical product, or may have an opportunity to secure such a product, but unless he knows or can learn something about the article in which he deals or proposes to deal, he is greatly handicapped in finding the best market for his product. This book, without being too technical, comes to his rescue, and gives him detailed information concerning most of the chemical and related products used in the arts or found in the trade.

Thus, the Dictionary is arranged in straight alphabetical classification, the name of the product being followed by its synonyms, and such particulars as; Color and properties; constants; solubilities, derivation, method of purification, grades, containers, uses, fire hazard, and railroad shipping regulations. Throughout the book an asterisk has been used to indicate those substances now made in America, many of which were not made here before the Great War. In a way, this innovation shows that some progress has been made in chemical manufacturing in the United States, an industry that is bound to be further developed and which will, in turn, call for just such information as that which is furnished in this book. The concluding sections of the volume contain tables showing combining weights, domestic weights and measures, metric equivalents, thermometric readings, specific gravity equivalents, definitions of standard units, and general regulations governing the transportation of dangerous articles by freight or express.

THE CHEMISTRY AND MANUFACTURE OF HYDROGEN. By P. Litherland Teed, A.S.M. (Mining and Metallurgy), A.I.M.M. Major, R.A.F. 8vo., 152 pages, cloth. New York, Longmans, Green and Co.

Although the elemental nature of hydrogen has been well known since Lavoisier's time, the commercial production of the gas for industrial and war purposes was practically of no importance until the last few years. Now there is an enormous demand for hydrogen in every industrial country, the weight of oil hardened by its means in Europe, in 1914, as stated by the author probably exceeded 250,000 tons. The synthetic production of ammonia by the Haber process is another industry with great hydrogen requirements. Besides its use for these industries, the Great War, through the development of the kite balloon and airship, created an enormous demand for hydrogen, and as a result, increased interest in its technical production has been developed.

In this monograph Major Teed presents most of the facts concerning our knowledge of hydrogen, Chapter I describing its uses, discovery and occurrence in nature; Chapter II, its chemical properties; and Chapters III, IV and V, its manufacture by chemical methods, chemico-physical methods, and physical methods, respectively. Where hydrogen is wanted for commercial purposes, the author states, two types of process will generally be found most useful; the electrolytic, where not more than 1000 cubic feet of hydrogen are required per hour and conditions are

such that the oxygen produced can be either advantageously used or sold locally; the Iron-Contact process, the Linde-Frank-Caro process, or the Badische Anilin Catalytic process, where yields of 3000 and more cubic feet are required per hour. In any event, local conditions and the requirements of a particular trade may make some of the other processes the most desirable. Indeed, no one interested in hydrogen production can fail to find something of importance on the subject in the material assembled between the covers of this book.

OPPORTUNITIES IN CHEMISTRY. By Ellwood Hendrick. 12 mo., 102 pages, cloth. New York, Harper & Brothers.

This work is described as that of a book answering the first questions of a man who thinks he wants to be a chemist, and in starting out to supply the answers to the questions, the author frankly states that there's no use in studying chemistry unless one has been able to keep his great talent of curiosity which so many lose when they go to school. This statement is amply verified by the experience of all observers and more especially, by those who have been or are teachers of chemistry.

The author's own views of opportunities in chemistry are expressed as follows: "A knowledge of chemistry is something like a good wife. It will help a man along in his work, but he must not count on it to support him. It is not fair to ask this of a wife, nor is it quite fair to ask it of chemistry, unless one has the patience and diligence to study, and the kind of mind that grasps the general principles that underlie chemical relations." In other words, if one possesses these attributes, he will find much in the study of chemistry that will pay him for the effort. The application of such a knowledge to the problems of industry and the concerns of everyday life are so manifest that the wonder is that more people do not study chemistry. The "opportunities" set forth in this book are sketched in a pleasing style which will appeal to the general reader, while the facts given concerning the application of chemistry in the various fields of human endeavor are most interestingly described and informative.

COAL TAR DYES AND INTERMEDIATES. One of a series of volumes giving a comprehensive survey of the chemical industries. By E. De Barry Barnett, B. Sc. Lond., A.I.C., consulting chemist to Bagley, Mills and Co., Ltd., formerly research chemist to Levinstein, Ltd., and works manager to the Stockton-on-Tees Chemical Works, Ltd. 8 vo., 207 pages, cloth. New York, D. Van Nostrand Co.

The author has given a clear account of the most important dyes and intermediates from which they are derived. No attempt has been made to enumerate all the intermediate compounds and dyestuffs actually manufactured, nor to give all the processes that have been proposed for the manufacture of those mentioned, but the writer has confined himself to processes that are likely to prove of technical value. As the book is devoted to industrial chemistry, very little academic information is given except where such is warranted.

In the preface the author has given a word of warning about the various processes described in German patents, and stress is brought to bear upon the question of economical conditions in the manufacturing end. Very interesting chapters on nitration, amidation, sulphonation and hydroxylation are discussed fully on important intermediates.

Part two is devoted to dyestuffs. Processes of manufacture are discussed, and reactions explained in many instances. Azo dyes, diphenylmethane dyes, triphenylmethane dyes, the indamines and indophenols, the azines, the alpha-oxazines, the thiazines, the indigoid dyes and the anthraquinone dyes are among the most important discussed.

Patents

Granted August 12, 1912

1,312,480—Sven Huldt, Stockholm, Sweden, assignor to Norsk Elektrisk Metalindustri Aktieselskap, Sundlokken, Sarpsborg, Norway. Method of refining zinc.

1,312,484—William J. Knox, New York, N. Y., and John P. Mallett, Elizabeth, N. J., assignors by direct and mesne assignments to General Research Laboratories, New York, N. Y. Apparatus for ozone generations.

1,312,531—Theodore W. Garbisch, Carter, Mont. Funnel.

1,312,534—Harold C. Greenwood, Putney, London, England. Synthetic production of ammonia.

1,312,544—Ella Johnson, Nocatee, Fla. Bottle-closure.

1,312,592—Arthur C. Spencer, Washington, D. C., assignor of one-third to Archibald Cox, New York, N. Y. Manufacture of potash and cement.

1,312,741 and 1,312,742—Willie G. Mills, and Charles T. Packard, Ipswich, England, assignors to Edward Packard and Co., Ltd. Chamber used in the manufacture of sulphuric acid.

1,312,782 and 1,312,783—Hugh A. Galt, Barberton, Ohio. Process and product for utilizing niter cake and similar substances.

1,312,784—Hugh A. Galt, Barberton, Ohio. Manufacture of glass.

1,312,800—Hugh K. Moore and George A. Richter, Berlin, N. H., assignors to Brown Company. Method for making carbon bisulfid.

1,312,826—Joseph A. Boyer, and Henry E. Bryant, Jacksonville, Fla. Turpentine-distilling apparatus.

1,312,840—William Elborne, Peterborough, England. Chemical heat-producing means.

1,312,842—Leon S. Finch, Dover, N. J., assignor to Hercules Powder Company, Wilmington, Del. Process of making cyanogen compounds.

1,312,872—William N. Rettinger, Bourbon, Ind. Wire cable.

1,313,021—Gertrude M. Scott, Scotts Mills, Oregon. Hot-water bottle.

1,313,023—John T. Sheard, Birley Carr, near Sheffield, England. Manufacture of sulphate of ammonia.

1,313,160—Leone Levi Bianchini, Rome, Italy, assignor to Societa Italiana di Elettrochimica, Rome, Italy, a Joint-Stock Company. Process for compressing chlorin and other gases.

1,313,192—William J. Kee, Metuchen, N. J., assignor to The Kalbfleisch Corporation, New York, N. Y. Process of making salt cake and sulphuric acid from niter cake.

Granted August 19, 1919

1,313,312—Floyd J. Metzger, New York, N. Y. Production of formates.

1,313,313—Floyd J. Metzger, New York, N. Y. Production and extraction of cyanids.

1,313,314, 1,313,315 and 1,313,316—Floyd J. Metzger, New York, N. Y. Synthetic production of ammonia.

1,313,370—Rasik Lal Datta, Calcutta, India. Process of recovery of sulphur.

1,313,379—Ingenuin Hechenbleikner, Charlotte, N. C., assignor to Chemical Construction Company. Process of making phosphoric acid.

1,313,386—Llewelyn L. Jones, Battle Creek, Mich. Funnel.

1,313,407—Edward B. Maxted, Walsall, England. Process and apparatus for the hydrogenation of oils, fats, and like materials.

1,313,503—William T. Petersen, San Jose, Cal. Bottle-closure.

1,313,566—Ernest C. Trowbridge, Gloucester, Mass. Medicine-dispenser.

1,313,657—John M. White, Meridian, Miss. Antisyphilitic arsenical preparation and process of making the same.

1,313,661—Roland L. Andreau, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company. Method of producing synthetic camphor.

1,313,819—Walter Hayhurst, Woodlands, Accrington, England. Vessel for containing acids and other liquids.

Granted August 26, 1919

1,313,884—John J. Elbert, Elizabeth, N. J., assignor to American Cyanamid Company, New York, N. Y. Apparatus and process for the production of ammonia.

1,313,885—John J. Elbert, Elizabeth, N. J., assignor to American Cyanamid Company, New York, N. Y. Process for the production of ammonia.

1,313,886—John J. Elbert, Elizbaeth, N. J., assignor to American Cyanamid Company, New York, N. Y. Process of purifying ammonia.

1,313,910—George A. Porter, Boston, Mass., assignor to Invincible Stopper Company. Non-refillable bottle.

1,313,987—Virginia B. Henry, Montgomery, Ala. Dropping-stopper for medicine.

1,314,138—Nathan Goodman and Benjamin Grubman, New York, N. Y. Process of making resorcinol.

1,314,148—Anders Andersen Pindstofte, Frederiksberg, near Copenhagen, Denmark. Apparatus for impregnating liquids with carbonic-acid or other gases.

1,314,203—Russell W. Mumford, New York, N. Y., assignor to Refining Products Corporation, Wilmington, Del. Process of making sugar.

1,314,204—Russell W. Mumford, New York, N. Y., assignor to Refining Products Corporation, Wilmington, Del. Process of making purifying preparations.

1,314,229—Frank S. Washburn, Rye, N. Y., assignor to American Cyanamid Company, New York, N. Y. Method of and apparatus for producing phosphoric acid and compounds of the same.

1,314,231—Roger Williams, Providence, R. I., assignor to Nitrogen Products Company. Process of and means for fixing atmospheric nitrogen.

1,314,236—Edward E. Arnold, Greene, Coventry, R. I., assignor to Nitrogen Products Company, Providence, R. I. System for recovering cyanids and the like from cyanid-bearing material.

1,314,237—Edward E. Arnold, Greene, Coventry, R. I., assignor to Nitrogen Products Company, Providence, R. I. Process for recovering cyanids and the like from cyanid-bearing material.

1,314,280—Herbert H. Meyers, Pittsburgh, Pa., assignor to Armour Fertilizer Works, Chicago, Ill. Contact process for making sulphuric acid.

1,314,294—William H. Wilkerson, Jr., Washington, D. C. Bottle attachment.

1,314,318—Amos L. Foreman, York, Pa. Bottle-cap.

1,314,321—Sigmund Fraenkel and Edmund Herrmann, Vienna, Austria, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Hormones and phosphatides and process of obtaining same.

Copies of patents may be obtained as follows; United States, 5 cents each; send to United States Patent Office, Washington, D. C.; French, one franc; send to M. M. Belin et Cie, 56 Rue des Frances-Bourgeois, Paris, for patents of the years 1902-1907, and to L'Imprimerie Nationale, 87 Rue Vieille du Temple, Paris, for patents of later date. German, one mark; send to Patent Office, Berlin. British, eight pence; send to Patent Office, London. Postage must be sent for British patents. Stamps are not accepted in payment for U. S. patents. In ordering patents, the number, name of patentee and subject of invention must be stated.

QUOTATIONS ON CHEMICAL STOCKS

	Bid	Asked		Bid	Asked
Aetna Expl.	10½	11	Grasselli, pf.	100	103
Air Reduction	57	57½	Hercules Powder	210	220
*Am. Ag. Ch.	95	96	Hercules, Powd., pf.	107	110
*Am. Ag. Ch., pf.	93	95	H'k Electro	60	70
Am. Chem. Prod.	1	1½	H'k Elec., pf.	65	75
Am. Chicle	92	97	Heyden Chem.	8	8½
*Am. Chicle, pf.	80	85	*Int. Agricul.	25	26
*Am. Cot. Oil	57½	58	*Int. Agricult., pf.	79	82
*Am. Cot. Oil, pf.	92	93	*Int. Nickel	27½	28
Am. Cyan.	30	40	*Int. Nickel, pf.	90	92
Am. Cyan., pf.	60	65	*Int. Salt	56¼	60
*Am. Druggists S.	10¾	11	K. Solvay	..	195
Amer. Glue	40	45	*Mathieson Alk.	36	40
Amer. Glue, pf.	65	70	Merrimac	92	94
*Am. Linseed	79¼	80	Mulford Co.	55	60
*Am. Linseed, pf.	95½	96	Mutual Co.	150	..
*Am. Malt	55¼	56	*Nat. A. & C.	62½	63
Amer. Zinc	23	24	*N't A. & C., pf.	90	91
Amer. Zinc., pf.	59	60	National Lead, pf.	83	84
Atlas Powder	137	143	National Lead, pf.	107	109
Atlas Powd., pf.	89	92	N. J. Zinc	250	254
*Barrett Co.	124	125	Nig. A., pf.	96	100
*Barrett Co., pf.	113	114	Parke, Davis & Co.	115½	116
British Am. Chem.	9½	10	Penn. Salt	81	83
Butterworth-Jud.	33	35	Procter & Gamble	676	695
By. Prod. Co.	118	120	Rollin Ch.	50	60
Carborundum	135	135½	Rol. Ch. pf.	80	90
Carborundum, pf.	115½	116	Royal Baking Po.	130	140
Casein Co.	40	..	Royal Bak. Po., pf.	97	99
Celluloid Co.	135	145	Semet S.	165	175
Celluloid, pf.	..	..	Sherwin-Williams	520	540
Corn Products	87½	88	Solv. Proc.	200	275
Corn Products, pf.	108	109	Stand. Ch.	80	100
Cu-Mor Chem.	1	1	Swan & Finch	95	100
Davison Chem.	32	32½	*Tenn. C. & Chem.	13	13½
*Distillers' Secur.	65	65½	Tex. Gulf, Sul.	15¾	15½
Dow Chem.	175	200	Union Carbide	81	83
Dow Ch., pf.	..	103	Union Sulphur	..	..
Du Pont	313	318	*Un. Drug	148	150
Du Pont, debs., pf.	91	93	*Un. Drug 1st pf.	52	52½
Du Pont. C., pf.	8	10	*Un. Drug 2nd pf.	146	..
Fed. Chem.	85	95	*Un. Dyewood	50	61
Fed. Ch., pf.	95	100	*Un. Dyewood, pf.	90	96
Freeport, Tex., Sul.	50	50¼	U. S. Gypsum	..	..
Freept, Tex. Sul., pf.	91	93	*U. S. Indus. Alco.	138½	139½
*Gen. Chem.	180	190	U. S. Indus. Al., pf.	105	135½
*Gen. Chem., pf.	100	105	Va.-Car. Chem.	78½	79
Grasselli	..	170	*Va.-Car. Ch., pf.	115	115½

BONDS

	Bid	Asked
*Am. Agricul. Chem., 1st conv. 5s, 1928	97	99
*Am. Agricul. Chem., conv. deb. 5s, 1924	101½	102
*Am. Cotton Oil deb. 5s, 1931	88	89
*Int. Agricul. Corp., 1st Mort. & Col. tr. 5s 1932	83½	85
*Va. Carolina Chem., 1st Mort. 5s, 1923	95	96
*Va. Carolina Chem., conv. deb. 6s, 1924	97	99

*Listed on New York Stock Exchange

OSAKA DRUG AND CHEMICAL PRICES

(*Special Correspondence to* DRUG & CHEMICAL MARKETS)

Osaka, Japan, Sept. 12.—Owing to the prosperity in local financial circles, orders for all manufactured products have been placed in a good volume. Boric acid suddenly jumped to yen 95 for crystals and yen 130 for powdered, because holders refuse to sell. Stocks are ample, it is said. Chlorate of potash is in good demand at yen 60 per 100 pounds. Sodium chlorate is selling at yen 42 per 100 pounds. Potassium ferricyanide is in good demand for export which has forced this material to yen 1.40 per 100 pounds. Potassium ferrocyanide is held at yen 1.10 a box.

Salicylate of soda is firm owing to the activity of buyers and advancing tendency of carbolic acid. The price is yen 1.95 a pound. Santonin is still tending upward. Bismuth subnitrate is advancing and is now held at yen 8.20 a pound in consequence of the export demand to China, though spot stocks are not small.

The market for aspirin is firm with the price at yen 4.25 a pound. Sodium bicarbonate is steady with the price at yen 8.50 for "H.B." brand and yen 8.70 for "Moon" brand, each in bags. The position of bismuth is unchanged in spite of the keen demand. The subnitrate is yen 7.80, salicylate, yen 10.80 and subgallate, yen 8.30 per pound. Formalin is firm, spot stocks being still small. The price is yen 1.80 a pound in pot and yen 2.20 a pound in bottle. Business is dull. Glycerin, at yen 0.85 a pound, is active. Sugar of milk holds at the former price of yen 245 per 224-pound keg. The demand for perchloride of mercury is very heavy, with the price at yen 4.20 a pound, and the price is firmly maintained. Phenacetin, advancing 50 sen a pound, reached the level of yen 9.80 a pound. Phosphate of codeine has not improved and is quoted at the former quotation at yen 5.50 per ⅛ ounce.

Salicylic acid, owing to the daily advance on the American market, is very firm here and has advanced as high as yen 1.60 a pound, which is an advance of yen 0.40 above the lowest price after the war. Active demand for tannic acid has forced the price up to yen 38.00. A further advance is expected. Antipyrine is in brisk demand with the price at yen 24 a pound. Owing to a report that American stocks of ipecacuanha are light, the price has soared to yen 12.50 a pound. Spot stocks of sandalwood oil are small, and the price is firm at yen 20.50.

New Incorporations

Keystone Chemical Co., Fairmont, W. Va., capital $25,000. F. J. Arbogast, Crafton, Pa.; Dusan Botic, Pittsburgh; Fred L. Arbogast, Fairmont, W. Va.; N. Arbogast, Crafton, Pa.; A. Botic, Pittsburgh.

The Druggists and Merchants Clearing Co., Denver, Col., capital $50,000. To do a general drug and chemical producing and buying business. Joseph E. Hankey, Earl Anthony, Mary J. Anthony, Denver.

Concome Co., Batavia, N. Y., capital $10,000. Food flavors and toilet articles. L. B. and L. A. and L. H. Johnson, Batavia.

W. H. Long & Co., Inc., Manhattan, capital $100,000. Flavoring extracts and food colors. W. H. Long, Jr., A. Rauff, C. H. Lewis, 1351 St. John's Place, Brooklyn.

Tanners, Dyers Raw Products Corporation, Dover, Del., capital $500,000. Dyewoods and extracts. Fred C. Thomas, Ben Coharts, Lewis Cohan, all of New York.

Standard Extract Co., Manhattan, capital $75,000. Flavoring extracts. C. H. Ross, A. Honig, D. S. Dejongh, 935 St. Nicholas Ave., New York.

Demilo Perfume Co., Manhattan, capital $5,000. J. A. N. Thomas, B. Coviello, C. Marano, 344 East 39th St., New York.

Maple Chemical Co., Inc., Northport, Suffolk County, N. Y., capital $50,000. T. Gutman, G. Gutman, G. Gobberg, B. M. Resh, 1815 Linden St., Brooklyn.

Radio Chemical Corporation, Manhattan, capital $10,000. To deal in radioactive metals. A. W. Evarts, R. T. Strahan, A. Roeder, 55 Liberty St., New York.

Capital Increases—Electrosynth Chemical Co., Manhattan, $5,000 to $10,000.

The Drug and Chemical Market

Current Spot Quotations of Pharmaceuticals, Page 32; Crude Drugs, Pages, 34-36; Essential Oils, Page 38.

MENTHOL ADVANCES $1 PER POUND

Quinine and Camphor Higher Owing to Scarcity—Quicksilver, Antipyrine, Norwegian Codliver Oil, and Creosote Lower—Denatured Alcohol is Higher Owing to Small Reserve Supplies

PRICE CHANGES IN NEW YORK
(Stocks in First Hands)

Advanced

Aconite Root, 10c lb.
Alcohol, Den., 4c gal.
Camphor, Jap. ref., 35c lb.
Cantharides, Russ., 25c lb.
Cinchona Quills, 10c lb.
Chillies, Jap., 1c lb.
*Formaldehyde, 1½c lb.
Hexamethylene, 5c lb.
Horehound, 1c lb.
Lycopodium, 5c lb.
Menthol, $1 lb.
Mustard Seed, Cal. Bn., 1c lb.
Pepper, Blck. Sing., 1c lb.
*Quinine, 10c oz.
Thymol, 25c lb.
Unicorn Root, 5c lb.

Declined

Antipyrine, $1 lb.
Asafetida, Pd., $1 lb.
Bay Rum, 2c gal.
Caraway Seed, Afr., 2½c lb.
Dutch, 2½c lb.
Codliver Oil, Norweg., $5 bbl.
Creosote, U.S.P., 10c lb.
Ginger, Jap., 1½c lb.
Hydroquinone, 20c lb.
Licorice Mass, 2c lb.
Mercury, $5 flask
Lavender Flowers, 3c lb.
Senega Root, 5c lb.
Yerba Santa, 2c lb.

*Second Hands

Trend of the Market

	Today	Last Week	Last Month	Last Year
Acid Salicylic	$.50	$.50	$.40	$.75
Calomel	1.76	1.76	1.76	2.00
Camphor, Jap., ref.	3.65	3.30	2.85	1.75
Glycerin	.19½	.19½	.20½	.60
Menthol	9.75	8.75	7.75	5.75
Opium, Gum	7.50	7.50	7.50	21.50
*Quinine Sulphate	.80	.80	.80	.90
Cantharides, Russ.	3.75	3.50	3.25	4.00
Ergot, Spanish	4.00	4.00	3.75	1.75
Buchu, Short	2.10	2.10	2.00	2.40
Ipecac, Cartagena	2.85	2.85	2.70	4.25
Rhubarb, H. D.	1.75	1.75	1.85	.66
Cloves, Zanzibar	.41	.41	.38	.47

*No goods available at this price

Practically all price revisions which have taken place during the week, and are worthy of note, have been confined, with few exceptions, to the fine chemical list. Although a good volume of business is reported as passing among the crude drugs, prices have remained stationary. The tone of the chemical and drug market is good, with a continuance of the brisk inquiry noted in most quarters. Buyers, consuming rather than speculative, are coming into the market here with considerably more freedom, although the general run of purchases is still of a more or less conservative nature.

Menthol, quinine and camphor hold the center of the drug trade stage. Combinations of circumstances, which are very similar for the three products, are forcing prices upward. Scarcity on the spot, especially camphor and quinine, coupled with a mixture of legitimate consumer demand and speculative activity, is holding these products in a prominent position in the trade.

Denatured alcohol has been advanced. Lycopodium is scarce and higher. Thymol and formaldehyde are up. Cantharides, cinchona quills and aconite root are the strong features of the crude materials. Sales agents have cut the price of quicksilver. Both Dutch and African caraway have again broken badly. Antipyrine, Norwegian codliver oil, creosote, hydroquinone and powdered asafetida are lower. A temporary decline in senega root is noted.

Fine Chemicals

Acid, Citric—This item has been rather quiet during the week with demand easy. Prices are unchanged at 93c@94c a pound by domestic manufacturers with second hands quoting 95c@96c and in some cases slightly higher. Further declines during the week, which have been warranted by the light demand, have been held off, owing to reports of a somewhat steadier tone to lemon products in Sicily.

Alcohol—Manufacturers have advanced the price of denatured alcohol again, on the activity of the demand, the smallness of reserve supplies and the cost of denaturing materials. For 180 degree proof, 52c@54c per gallon is named, while the 188 proof is quoted at 56c@58c.

Antipyrine—Selling competition continues to slash prices for antipyrine. Efforts of sellers here to move goods have brought on a sharp tilt between imported and domestic goods. On this market $5.00 a pound can be done. Most business is reported to be passing at about $5.50, and some holders are asking up to $6.00 a pound.

Bay Rum—Good arrivals for some time past have eased the position of bay rum slightly. On the spot $3.18 per gallon is the price.

Camphor—Although American refiners maintain $3.30 a pound for bulk goods, as their price, it is practically impossible for outsiders to buy at any figure under $3.65 a pound released. Most holders of Japanese slabs are asking $3.65 and have very little to offer at this price. For the next week, a price of $4.00 per pound is confidently predicted. Tablets are very scarce and hard to find at $3.75 a pound upward.

Codliver Oil—Norwegian oil has made a rather unseasonable decline. The demand has not been as expected. Germany, formerly a large user of the Scandinavian oil, is now getting plenty of cheaper edible oils from here and taking less of Norway's product. On the spot, $130 a barrel is the price, with forward shipments offered at lower figures. Newfoundland oil is in good demand and firm at $90.

Creosote, U. S. P.—Cheaper cost of production has brought a lower price from manufacturers. Quotations are now being made at $1.25@$1.30 a pound.

Formaldehyde—Although some manufacturers are still quoting 22½c a pound, it is practically impossible to secure supplies at this figure except by regular users and buyers. Outside hands are disposing of small quantities at 24½c a pound. One sale was noted at 24c. The firm position and high cost of wood alcohol has made supplies difficult to obtain.

Hexamethylene—The position of wood alcohol has also been the chief factor in strengthening up hexamethylenetetramine. Quotations are being made at $1.00@$1.05 a pound.

Hydroquinone—Reduced demand and cheaper cost of production, coupled with selling competition, have sent the price of hydroquinone down to $1.80@$1.85 a pound.

Licorice Mass—Larger stocks are available, and the price is lower for this item. Down to 56c is named,

but the goods are poor in quality, a recent shipment having been rejected here. For good quality mass, 58c@60c a pound is the price and easy at this figure.

Lycopodium—The continued scarcity has tightened up the situation considerably, and the price has been advanced again by holders. Sales have passed at $1.80 and this seems to be inside. Up to $1.85 is being asked.

Menthol—Several leading consuming interests have come into the market during the week and taken up large lots. There has been quite a little speculative activity also, although the price is now too high to induce much of this buying. The real demand from the several big users shot the price up a dollar per pound within a few days. On the spot, $9.75 a pound seems to be inside at this time with several holders naming $10.00 as their price. From indications, the price looks as though it might reach the $12 point before an easier condition is brought about. Japan is cleaned out and is reported to have bought here recently for re-shipment.

Mercury—Demand has eased off considerably, and supplies of the metal are showing improvement here. Selling agents have reduced their price for spot goods to $100 per flask.

Quinine—Nothing is available on this market under $1.50 per ounce, and very little is reported passing at this figure. For such second hand goods as can be scared up, any figure up to $1.60 is being asked and paid. Speculative buyers are active. The position of the bark is unchanged with supplies small here and little coming forward. Domestic manufacturers are tied up without ten per cent of their requirements.

Thymol—The position of thymol is stronger on the smallness of stocks. Reduction of output has allowed supplies to grow small and the price is higher at $7.00 a pound.

Crude Drugs

Aconite Root—There is an acute scarcity of aconite root on the spot, especially goods answering to the U. S. P., and the price is moving upward as a result. Quotations are being made at 65c@75c a pound, the latter price being asked for all U. S. P. stuff.

Asafetida—The price of powdered asafetida has taken a drop as larger supplies of the products are obtainable here. Quotations are made at $4.50@$4.75 a pound. The whole gum is slightly firmer at $3.60@$3.75.

Caraway Seed—A sharp break has again taken place in caraway seed this week. Large arrivals of both African and Dutch are driving the price down rapidly. For the former, 14c@14½c a pound is quoted while the Dutch is bringing 12½c@13c.

Cantharides—Russian cantharides are scarce and somewhat firmer at $3.75 for whole and $4.00 a pound for powdered.

Cinchona Quills—Nothing is coming forward, and prices are very tight on the small remaining lots. For good quills 85c@$1.00 a pound, as to length and quality, is quoted. Broken quills are worth 60c@70c.

Senega Root—There has been a slight reduction in the spot price of senega root, although supplies are nowhere very large. A shipment of several tons is being offered here by a recent purchaser in the country at $1.50. The price on the spot is now $1.65@1.70 a pound, although it is not expected that this figure will last for long. One authority here was of the opinion that the future price would be very close to the $2.00 mark.

Yerba Santa—Steady increases in stocks have driven prices downward. This product is lower at 12c@13c a pound.

LARGE QUININE TRADE IN CHINA

Dutch Ship Enormous Quantities to Shanghai and Other Points—Chinese Dealers Reported to Have Put Opium in Quinine Pills—Germany's Loss

The Dutch Consul at Shanghai has written a lengthy report in "Handelsberichten" dealing with the quinine trade in China during the war, in the course of which he states that Germany had by far the greater part of the trade prior to 1914, only relatively small quantities being imported from Java, the United States, and Great Britain. German quinine products found their way into the interior of China in their original packages, as the Chinese wholesale dealers did not take the trouble to remove the labels or re-pack.

At the outbreak of war the stocks of German quinine products were large, but as all imports were cut off prices of sulphate soon advanced from 30 to 60 Shanghai taels per 100 ounces, and later from 75 to 80 taels. Further advances in the prices were expected, and this led to a large speculation among Chinese dealers. The greater part of the business went to the Bandoeng quinine factory, which was able to deliver quickly and at a lower freight than from British or American sources.

The chaotic conditions in China made it impossible to send products into the interior during the greater part of 1916 and the beginning of 1917, so that large stocks of quinine remained unsold in Shanghai in the autumn. During those two years there was a larger demand for cinchonine, especially the muriate, which was about 50 per cent cheaper than quinine sulphate. The Bandoeng factory quickly met the enormous demand, and from 30,000 to 60,000 ounces were shipped to China at a time. The quantity which was shipped from Bandoeng to China in nine to twelve months was from 200,000 ounces to 300,000 ounces.

As the use of opium was prohibited to the Chinese, native pharmacists brought into commerce, under the name of "quinine-pills," pills containing a small quantity of opium mixed with quinine. According to reports, a large quantity of these pills was sent to the interior before the Chinese Excise authorities discovered it, and afterwards considerable quantities were burnt. At present the demand for quinine sulphate has come to a complete standstill. The old stocks are by no means exhausted, as is shown by the fact that local dealers quote 90 taels per 100 ounces. Quinine tablets were still in active demand during the first six months of 1918; at least five millions of 2 grain tablets have been imported into Shanghai.

PLANT YIELDS ASPHYXIATING GAS

In the Arms Factory and Laboratory of Belem, Mexico, interesting experiments are being conducted with regard to the manufacture of asphyxiating bombs. The Department of Biological Researches, controlled by the Ministry of Public Works has received from a travelling naturalist samples of a plant known under the name of "El gobernador" (the Governor), which, aside from its high medicinal properties, yields asphyxiating gas suitable to the manufacture of poisoncus shells. This plant has been discovered by naturalists in the State of Oaxada, and the studies thus far made with it have revealed that it is admirably adapted for chemical warfare.

Messrs. Kynoch (Limited), of Umbogintwini, Natal, have recently erected an experimental plant for the production of hydrogen peroxide. The barium peroxide method was employed, the basic raw materials being South African barytes and locally produced sulphuric acid.

The Essential Oil Market

Current Spot Quotations of Essential Oils and Aromatic Chemicals, Page 38.

ESSENTIAL OIL MARKET FIRM

Eucalyptus Oil, Safrol, Sweet Birch and Genuine Gaultheria Higher—No Downward Price Revisions of Note—Peppermint Oil Situation Unchanged—Small Supplies of Wormseed Oil

PRICE CHANGES IN NEW YORK
(Stocks in First Hands)

Advanced

Oil Bay, 25c lb.
Oil Eucalyptus, 10c lb.
Oil Patchouli, $2 lb.
Oil Sweet Birch, 50c lb.
Genuine Gaultheria, $1 lb.
Oil Wormseed, Balt., 25c lb.
Eucalyptol, 5c lb.
Menthol, $1 lb.
Safrol, 5c lb.
Thymol, 25c lb.

Declined

Oil Erigeron, $1 lb.
Oil Mustard, Artif., $1 lb.
Cinnamic Acid, $1 lb.

Trend of the Market

	Today	Last Week	Last Month	Last Year
Oil Bergamot	4.70	4.70	5.00	5.80
Oil Citronella, Ceylon	.47	.47	.46	.57
Oil Cloves	2.90	2.90	2.70	3.25
Oil Lavender Flowers	9.25	8.25	7.25	5.65
Oil Lemon	1.10	1.10	1.30	1.30
Oil Peppermint	7.75	7.75	6.50	5.30
Oil Sandalwood, E. I.	11.00	11.00	10.75	13.55
Oil Sassafras, Artif.	.67	.67	.53	.41
Benzaldehyde, F. F. C.	2.00	2.00	1.50	5.40
Coumarin	7.00	7.00	7.00	33.00
Eucalyptol	1.25	1.20	1.10	1.40
Methyl Salicylate	.60	.60	.50	.90
Vanillin	.78	.78	.67	.88
Thymol	7.00	6.75	6.25	13.25
Menthol	9.75	8.75	7.75	5.75

A steady, routine market, with prices firmly maintained and characterized by the same strong undertone, has been noted during the week. A few products continue to attract attention in the trade, owing to scarcity on the spot which is forcing the prices of these items upward. The general level of quotations is moving slowly, but steadily, toward higher figures. There have been no real outstanding features to the market this week, the general condition being reported as quiet.

Outside of oil of bergamot, which continues to tend lower both in Sicily and in this market, and artificial mustard oil there have been no downward price revisions of note this week. Oil of lemon seems to have steadied somewhat, and price ideas in several quarters are firmer. Australian eucalyptus oil is strong and higher. Safrol has advanced again. Wormseed and wormwood oils are both in very firm position on the smallness of spot supplies. Oil of sweet birch and genuine gaultheria have advanced again, and there is a wide variance in quotations noted here. Oil of patchouli has firmed up this week and the price is higher. Oil of cassia is very strong and in active demand. Clove oil is quiet. Lavender flowers is in good demand. Spearmint continues scarce.

There has been no change in the peppermint oil situation worthy of particular note. Producers are sitting tight with prices unchanged. On the spot, stocks continue very light. The West has the situation well in hand, and producers are evidently very confident of their position. Buyers are awaiting developments, meanwhile worrying along on a hand-to-mouth basis.

Essential Oils

Oil Anise—The scarcity of this item continues. Prices are given as low as $1.75 a pound in one quarter, ranging up to $1.70 in others.

Oil Bay—The general opinion of the price of this product now seems to be unanimous in the trade at $4.00 a pound. Supplies are limited with a steady demand.

Oil Bergamot—Bergamot is still in about the same weak position. Prices for the usual quantities in the trade here average $4.70@$4.75 a pound. In Sicily, there has been little or no improvement in the situation. Demand is dull. Offerings out of Sicily, it is reported, are being made at concessions and it is furthermore reported that quoted figures on the spot are rather easy to shade.

Oil Cassia—A brisk demand is moving good quantities of cassia oil. Stocks on the spot are none too large, and prices remain firm at the recent advance. The technical grade of the oil particularly is in active demand, quotations being named at $2.35@$2.40 a pound. For the lead free, $2.45@$2.50 a pound is the price, while U.S.P. redistilled oil is named at $2.85 @$2.90.

Oil Cedar Leaf—Stocks are still short both on the spot and in the country. Prices are unchanged but firm at $2.25 a pound for the leaf oil. Oil of the wood is in light supply and strong at 25c@26c a pound.

Oil Citronella—A good consuming demand is noted. Most quarters report that 47c a pound for Ceylon oil in drums is their inside figure, while for Java oil 90c a pound is the price.

Oil Cloves—Oil of cloves has quieted down in keeping with the more or less dull position of the spice at this time. A routine demand has been reported with prices unchanged and steady at $2.85@$2.90 a pound for cans. Lesser lots are available up to $3.05 a pound according to quantity.

Oil Erigeron—Offerings are now being made of spot goods at $8.00 a pound. Forward delivery is available at figures considerably lower than this level.

Oil Eucalyptus—Further advances have been made in the price of Australian eucalyptus oil in this market owing to a brisk demand having reduced stocks to a minimum. One holder has named 70c a pound. This is the lowest figure which has been heard. The majority are asking 75c@85c a pound for their goods.

Oil Lavender Flowers—In the trade it is reported that the demand for lavender flowers here has become very active from consuming quarters. Stocks are said to be very light with a poor outlook for replenishment of supplies. From Europe comes the message that the collection of the flowers has been greater than last year and, although the yield of oil per unit is small, the total production will show an increase. Prices, at the same time are being firmly maintained. On the spot, $9.25@$9.50 a pound is the market.

Oil Lemon—A slight tendency to become firmer is reported from the market in Sicily. Prices here have turned slightly stronger, and there is said to be less shading. There have been no importations during the week past. On the spot $1.10 a pound can still be done, while some holders are continuing to ask $1.15 and higher for special brands of goods.

Oil Mustard—Selling competition and good stocks of artificial mustard oil have forced down the price here. Down as low as $8.50 a pound can be done, although most holders are asking in the neighborhood of $9.00 and up to $11.00 a pound. Natural oil of mustard can be had for $25.00 a pound.

Oil Orange—Prices are firm with a steady, routine demand reported. For the bitter oil $2.25@$2.30 a pound is quoted. Sweet Italian, $3.00@$3.10 a pound is the price, while the West Indian is unchanged at $2.25@$2.30.

Oil Patchouli—This item has firmed up slightly, and the price is higher. For spot goods, $19.00@$20.00 a pound is about the run of the market here.

Oil Peppermint—Western producers still have the situation well in hand and are holding prices strongly at their present levels. On the spot, stocks are in very small supply for immediate delivery with prices ranging from $7.65@$8.00 a pound, according to seller and quantity. Buyers are taking up goods for immediate requirements only, a hand-to-mouth method being deemed safest at the present stage of the market. Prices will have to come down considerably to incite interest in large purchases. Last week 91 cases of peppermint oil arrived here from London. For U.S.P. oil on the spot, $8.00@$8.25 a pound.

Oil Sassafras—Both artificial and natural are very firm and scarce. Up to $2.10 a pound is being asked for the natural oil while $2.00 seems to be inside. For the artificial, 65c@70c a pound is quoted.

Oil Spearmint—This item is still very scarce and practically nominal at $10.75 a pound.

Oil Wintergreen—Sweet birch is very firm and higher at $6.00@$7.00 a pound, according to seller. For the gaultheria oil, $10.50 a pound is about inside while up to $11.00 and $12.00 are being asked in some quarters.

Oil Wormseed—For Baltimore oil of wormseed $4.50 can no longer be done, $4.75 a pound being quoted as the inside figure.

Oil Wormwood—The oil is very firm and steady at $7.25 a pound with a price of $7.50 being asked by some.

Aromatic Chemicals

Cinnamic Acid—This product is lower at $6.00@$6.50 a pound.

Eucalyptol—There is a scarcity of eucalyptol, and the higher price of the oil is also a factor in the price of the product being advanced again by holders. Quotations are being made on a basis of $1.25@$1.30 a pound.

Menthol—(See report on page 20, under the Drug and Chemical Market.) The price is sharply higher at $9.75@$10.00 a pound.

Safrol—Another advance has brought the price to 75c@80c a pound. This product is scarce, in good demand and tending upward.

Thymol—(See drug market on page 20.)

The imports of household soaps for 1917 were negligible, so that the production for that year, 2,330,000,000 pounds, furnished the basis of calculation. Assuming the production of yellow rosin laundry soaps, white laundry soaps, and white floating soaps to stand in the ratio 5:2:3, and neglecting all other soaps, such as chips, powders, etc., the above weight is distributed as follows: Yellow rosin laundry soaps, 1,165.000,000 lbs.; White laundry soaps, 466,000,000 lbs.; White floating soaps, 699,000,000 lbs.

WAR PROBLEMS IN THE SOAP INDUSTRY

Manufacturers Obliged to Use Many Substitutes—Notable Increase in Amount of Sodium Silicate Consumed—Size of Cakes of Laundry Soap Reduced

In a pamphlet on "Prices of Soaps and Glycerin," H. L. Trumbull who compiled the information for the War Industries Board, says the most significant effect of the war on this industry was the remarkable extent to which the manufacturers were forced to use substitutes. Owing to scarcity, the prices of many fats and oils increased until they were prohibitive. Efforts were made to improve the recovery of glycerin in the manufacturing process, since this commodity constituted a very important ingredient of explosives. Although a decided improvement in the method and percentage of recovery of this product was effected during the war, the soap industry as a whole continued to neglect the precautions which insure a high percentage of glycerin recovery. For example the fats and oils consumed by the soap industry in 1917 should have yielded 100,000,000 pounds of glycerin on the basis of a fairly complete recovery, whereas the yield obtained was 70,000,000 pounds. Cooperation between the soap industry and the Food Administration in 1918 effected more rigid economy in the matter of glycerin recovery, so that the threatened shortage for that year was averted.

Notable increases in the amount of sodium silicate consumed by the soap industry during the war from 43,000,000 pounds in 1914 to 230,000,000 pounds in 1917 denote a growing tendency to substitute filler for soap under the stress of war demands and prices.

The prices quoted for soaps as finished products are not strictly comparable with those for the other commodities, since the weight of a cake of soap was reduced by practically all manufacturers during the war. It is impossible, however, to secure complete records of the reduction in weight, which amounted to 5, 7, or even 10 per cent. These changes in weight occurred in 1916 and 1917. One of the leading manufacturers of soap states: "The size of the cake was reduced during the war in the case of almost if not quite all the popular brands of laundry soap on the market." The fluctuation in the price of any soap by the box or cake is not therefore an accurate index of the real range of prices.

Cottonseed products, including cottonseed oil, were subject to the control of the Food Administration. The ruling of December 7, 1917 (Rule 13), fixed a margin of $13 between the seed and the products obtained from the crushing of seed, certain specified yields being mentioned for localities east and west of the Mississippi River. The resale price of cottonseed was then fixed at not to exceed $2 per ton over purchase price, under Rule 14 of the same date. On September 7, 1918, the price of cottonseed oil was definitely set by the Food Administration at 17½ cents per pound.

The contemplated price control of glycerin never went into effect. After August, 1918, by special agreement between the Food Administration and the manufacturers of glycerin, prices were announced as follows: August and September, 60 cents per pound; October and November, 58 cents per pound; December, 56 cents per pound.

The position of peppermint oil in New York, as far as stocks are concerned, is such as to warrant the reshipment of the oil from the London market back to the United States. The arrival of 91 cases from London last week is noteworthy.

The Heavy Chemical Market

Current Spot Quotations of Heavy Chemicals, Pages 38 and 40.

PRUSSIATE OF SODA IS ADVANCED

Spot Stocks Difficult to Locate—Ammonia Water Running Short Owing to Steel Strike—High Test Acids in Good Demand—Caustic Soda and Soda Ash Unchanged

PRICE CHANGES IN NEW YORK
(Stocks in First Hands)

Advanced

Sulphate of Ammonia, 10c per 100 lbs.
Yellow Prussiate of Soda, 5c lb.

Declined

Copper Sulphate, ¼c lb. Bichromate of Soda, ½c lb.

Trend of the Market

		Today	Last Week	Last Month	Last Year
Acetic Acid, Glacial	lb.	$.12¼	$.12¾	$.14	$.19½
Sulphuric Acid, 66 deg.	ton	20.00	20.00	18.00	28.00
Bleaching Powder	100 lbs.	2.25	2.25	2.00	2.75
Copper Sulphate	100 lbs.	8.70	9.00	9.00	9.50
Potash, Caustic	lb.	.28	.28	.28	.74
Saltpeter, gran.	lb.	.13¼	.13½	.13¾	.27
Soda Ash, 56 p.c.	100 lbs.	2.00	2.00	2.00	2.50
Caustic Soda, 76 pc.	100 lbs.	3.30	3.30	3.30	4.30
Potassium Bichromate	lb.	.26	.26	.34	.45

Actual sales of heavy chemicals have been limited owing to the difficulty of obtaining goods. While export business has not increased, buying from the Orient and South America continues. Inquiries from Sweden are in the market for later delivery on various important chemicals. Various ammonia products feel the effect of the steel strike. Aqua ammonia is decidedly scarce and under very heavy inquiry for spot and later delivery. Buyers are offering fancy prices wherever a pound is available. Sulphate of ammonia is higher, second hands being in control of the market. Producers are unable to accept new business until 1920. Antimony sulphuret is in strong request, with offerings greatly restricted, because of the acute shortage.

Copper sulphate fell to lower levels during the week, following the easier tendency of the metal market. Copperas is firming up and is in good call. Magnesite is higher, owing to limited supplies. Potash salts are unchanged. Chlorate is going good for export. Carbonates are held at fancy figures by one or two holders. Prussiates continue scarce and firm.

Caustic soda and soda ash are unchanged. Supplies of bleaching powder are limited. Bichromate is tending downward, and price recessions were noted during the interval. Yellow prussiate of soda has featured the sodium salts, and a sharp advance is noted. Nitrite is in strong demand for prompt and later delivery.

Acid, Acetic—The demand for acetic acid is strong, and heavy inquiries from foreign sources are in the market for glacial. On ton lots, $12.35 has been quoted during the week, f. a. s. New York, barrels included. Small quantities of the 28 p. c. have been quoted at $3.75, inclusive. The high tests acid are in good demand, and future deliveries of glacial are held at higher levels.

Acid, Muriatic—Heavy buying continues to absorb the bulk of the production, and although it has increased of late, little material has reached the open market. Prices are 1¼c for the 18-degree; 2c for the 20-degree, and 2¼c@2½c for the 22-degree material, which is difficult to obtain. The above quotations are on carboys, car lots, f. o. b. works.

Acid, Nitric—Offerings are large and rather free on the basis of 5c for the 36-degree in carboys. Certain holders, whose supplies are tight, refuse to meet this figure regardless of quantity.

Acid, Sulphuric—Prices vary considerably, depending upon the quantity which the holder has in stocks. About $17.50 a ton can still be done on the 66-degree, and in directions offerings are not made under $20. The same condition applies to oleum which is quoted at $20 and upward. There is a good movement of stocks, but supplies are still adequate to take care of the requirements. Quotations are on tank car lots, sellers' works.

Alum—Quotations are unchanged, and offerings continue to be made at 3¾c for the ammonium lump; 4c for the ground, and 4¼c for the powdered. Buying is steady but not particularly large. Supplies of the chrome are in strong request with offerings limited. Potash lump is going good at 8c@8½c and the chrome at 17c@18c.

Ammonium Muriate—Lump material continues scarce at 25c@28c according to quantity. The gray material is steady at 13c and the white granulated at 12c.

Ammonium Sulphate—Second hands are in control of the market on spot goods, as producers are booked up to 1920. In view of the heavy exportation and the strike in the steel trade, prices are higher at $4.85.

Antimony Sulphuret—The spot market is bare of goods and is under heavy inquiry. First hands have nothing to offer until the end of the year. Quotations are decidedly firm at 25c for golden No. 2; golden No. 1 at 30c; crimson F. at 35c and vermilion at 50c per pound.

Arsenic—Producers continue to be well booked on contract and very little material is reaching the open market. Quotations are 9½c@10c for large business and up to 12c is quoted on small lots.

Aqua Ammonia—The steel strike is having its effect on this market, and supplies on spot are very scarce. The market is under very heavy inquiry, and buyers are offering fabulous prices in their endeavor to obtain goods. Manufacturers' prices are unchanged at 6¾c for car lots and 9c for carboys on the 26-degree.

Bleaching Powder—This material has been under heavy buying pressure, and offerings are somewhat restricted with prices firm. For stocks in export drums, 2½c is named by manufacturers, and 2¼c is the price for domestic drums.

Carbon Bisulphide—Large quantities are passing for export, and inquiries are heavy from this source. Drums of 500 pounds are quoted at 5c, New York, and car lots are at 5c@5¾c, depending upon quantity.

Carbon Tetrachloride—Very good inquiries are coming from abroad, and stocks for domestic use are moving in larger quantities at 11c, New York. Contract business is passing at 10c@10½c, according to holder.

Copper Sulphate—Following the easier tendency of the metal market, prices on the sulphate fell to lower

levels. About $8.70 per hundred can be done on the large crystals direct from the producer, and even lower prices are named by second hands.

Copperas—Production is somewhat restricted owing to the steel strike, and the market is slightly firmer. Prices are unchanged at $1.10@$1.20 per hundred pounds.

Magnesite—The available supplies are tight, and 4c is asked for prompt shipment of small lots. Offerings at $65 a ton have been noted on large tonnage for export.

Potassium Bichromate—Supplies continue low, and 29c is heard on October deliveries, but 26c@27c can still be done in the open market. Buying interest is good for both export and domestic use.

Potassium Carbonates—The market is practically unchanged. From 23c@25c is quoted on the 80-85 p. c. stocks and from 27c@29c on the 85-90 p. c. material. U. S. P. material is strong at 50c@55c per pound.

Potassium Chlorate—Export goods are quoted at 19c. This figure is subject to shading on firm business. Buying interest is reported from the Orient and South America. Domestic stocks are held at 20c.

Soda Ash—The domestic market is holding at $1.75 per hundred pounds for the 58 per cent, basis 48, on this year's delivery; 1920 contracts are being closed slightly lower. Export shipments are closed at $1.90 less 3 to 5 per cent in barrels, according to holder.

Caustic Soda—Resale lots continue to be offered at a better figure than named by the producer. However, leading factors are reporting steady sales at $3.32½ for foreign shipments. The domestic market is unchanged at $2.75 for the 76 per cent, basis 60, sellers' works.

Bichromate of Soda—An easier tendency is noted, especially among second holders who are willing to accept 12c on large lots. Buying interest is not exceptionally keen among producers who are quoting October goods at 13½c. The contract price for 1920 has advanced from 8⅝c@9¼c per pound.

Yellow Prussiate of Soda—Heavy buying has practically cleaned up the spot market, and prices have advanced to 24½c@25c for prompt deliveries. Manufacturers are heavily booked on contract and are turning down high figures for spot goods.

NITRATE DEPOSITS IN SOUTH AFRICA

The South African Nitrate and Potash Corporation (Ltd.), with offices at No. 151 New Stock Exchange Building, Johannesburg, has recently been incorporated under the limited liability laws of the Orange Free State Province, with a capital of £160,000 divided into 160,000 shares of £1 each with power to increase its capitalization to £500,000 ($2,433,250).

This corporation has been formed to take over and exploit the mining rights and nitrate leaseholds covering an area of over 300 square miles of the nitrate-bearing shales in the districts of Prieska and Hay, in and about the asbestos mountains in Griquatown, west central portion of the Cape Province, lying between the towns of Prieska, on the Orange River, and extending northeastward to Griquatown, a distance of about 70 miles.

It is reported that in addition to the deposit of nitrates, pyrites in large quantities lie adjacent, rendering practicable the manufacture of explosives and chemicals on a cheap and extensive scale.

JAPAN'S HEAVY CHEMICAL MARKET

Visible Supply of Soda Ash Small—Caustic Soda Unsettled—Sulphate of Ammonia Weak Under Accumulation of Japanese, British and American Supplies

(*Special to* DRUG AND CHEMICAL MARKETS)

Tokyo, Sept. 18.—The sodas have become markedly stronger. Soda ash has gone up to yen 6 per 100 pounds for British goods. British manufacturers have made efforts to regain the market in this country, but they have failed to import goods to any great extent. Now the visible supply of both British and American soda ash in the market is small.

Caustic soda is on the other hand very unsettled. It stands at the old point of yen 11.50 per 100 pounds. Bichromate of soda which has been motionless for some time past is now departing from its old groove because the visible supply has become markedly poorer. It is now up to yen 35 per 100 pounds.

Bleaching powder which has been quite immobile for some time, is higher and its long silence is now broken. It is up to yen 6.50 per 100 pounds. The cause for this change is to be found in the reduction in the visible stock as the result of the producers' curtailed operations.

Phosphorus is irregular. Red phosphorus is firmly maintained on the comparatively small stock held and the comparatively active demand in evidence. It is still quoted at yen 115 per picul. Yellow phosphorus has become overstocked and the price is weakening. It is now offered at yen 130 per picul, a decline of yen 5.

Sulphate of ammonia is also weak under the weight of accumulation. It is an interesting phase of the fertilizer trade that these goods stand in such a condition at present. Before the war sulphate of ammonia was mostly imported from England and only a small portion of Japan's requirements which were roughly 120,000 tons was produced at home. Immediately after the commencement of the war the shipment of sulphate of ammonia was stopped by England and a serious question cropped up here. However, that proved a stimulus to Japanese manufacturers and until last year their producing capacity reached approximately 80,000 tons. In June this year the United States imported sulphate of ammonia to the amount of 30,000 tons. In July England resumed its import of sulphate of ammonia and that month's arrival amounted to 20,000 tons. At present, accordingly, there is a strong rivalry among Japanese, English and American manufacturers in the fertilizer market here and the market is well stocked. Spot cargo is still quoted at yen 380 per ton but futures are offered at yen 260 per ton.

Zinc dust is marked with a change for the better, but there is no increasing demand from overseas. Principally the change has been brought about by the increased cost of production. It is now quoted at yen 40 per picul. Producers complain especially of the rapid increases in wages.

Dr. J. W. Shipley has been appointed assistant professor of chemistry at the University of Manitoba, Winnipeg. He graduated at that institution in 1908, winning the silver medal in science. He pursued his studies in chemistry at Harvard and obtained his M.A. in 1910 and his Ph.D. in 1913. Subsequently he became assistant professor of chemistry at Ohio State University and was more recently professor of chemistry at the Manitoba Agricultural College.

The Color and Dyestuff Market

Current Spot Quotations of Colors, Dyestuffs, etc., pages 40 and 42.

TRADING IN INTERMEDIATES CURTAILED

Many Inquiries, But Few Develop Into Sales—Benzol Market Inactive—Logwood and Hematine Likely to Advance—Good Demand for Colors for Export

PRICE CHANGES IN NEW YORK
(Stocks in First Hands)

Advanced

Madder, Dutch, 3c lb.
Aniline Salt, 3c lb.
Aniline Oil, 2c lb.

Declined

Turpentine, Spirits, 20c gal.

Trend of the Market

		Today	Last Week	Last Month	Last Year
Benzol, C.P.	gal.	$.25	$.25	$.25	$.24
Naphthalene, flake	lb.	.06	.06	.06	.09
Phenol	lb.	.12	.12	.14	.44
Xylol, pure	gal.	.40	.40	.40	.45
Toluol, pure	gal.	.26	.26	.24	1.50
Aniline Oil	lb.	.34	.32	.25	.28
Benzaldehyde	lb.	.65	.65	.65	3.75
Betanaphthol, dist.	lb.	.45	.45	.45	.65
Paranitraniline	lb.	.95	.95	.95	1.70
o-Toluidine	lb.	.25	.25	.35	1.00

Actual trading in intermediates during the week has been limited. Inquiries were the only feature, and sellers reported these as plentiful, with results light. Prices are unchanged, except in directions where a scarcity is felt. The undercurrent of the market is strong, especially on all aniline products. Aniline oil and salt are offered at higher levels for prompt shipment, but later deliveries are named at a reasonable figure. H-acid is quiet on spot, and contracting continues. Sulphanilic acid is firming up as well as all aniline products. Benzidine base is in fair request for domestic use, and a better movement is reported for export. Dimethylaniline is scarce and under good inquiry. Toluol products are unchanged. Paraphenelenediamine is moving in broader channels, and is strong. Paratoluidine is under contract and very little material is offered.

The crudes are unchanged. The benzol market has experienced a very inactive week. Although stocks are scarce for prompt shipment, the demand is quiet. Odd lots of phenol are in call for export, and a good movement of Government stocks is reported for domestic consumption. Naphthalene is in fair request. Cresylic is higher in quarters, and imports are lighter. Toluol and xylol are quiet.

Logwood and hematine are features of the dyewoods and dye bases. Both are likely to advance, owing to the higher rates and increase in cost of supplies at primary points. Heavy buying has caused a tighter condition on quebracho for spot delivery. Mangrove sold at low levels during the week. Archil continues in short supply and is firm. Annatto and cochineal are both inactive and weak. Singapore gambier is scarce and in good call. Nutgalls have been under good inquiry and are slightly firmer. Shellac is easier, and supplies are more plentiful. Turpentine has fallen off in demand, and offerings are more free at lower levels. Dextrines and starches are firm. Potato starch is scarce.

Domestic colors continue under heavy buying for prompt shipment, and good quantities are being sold to foreign interests. There is very little imported goods available.

Intermediates

Acid-H—Very limited spot buying is reported. Most of the producers are under contract and, because of this, material for prompt shipment is somewhat restricted at $1.50@$1.60.

Acid, Sulphanilic—While little interest is manifested by users, sellers are inclined to hold up the market, owing to the strength of aniline oil. The crude is quoted at 25c, the fine at 10c a pound higher.

Aniline Oil—Offerings for prompt shipment for 5 to 10-drum lots are named at 35c a pound. Car lots for November delivery, which are very few, can be done at 28c direct from the producers. In most directions, manufacturers are not quoting on new business until 1920. The market is under heavy inquiry, but actual deliveries are checked by the pronounced scarcity.

Aniline Salt—Salt is higher and is offered in limited lots at 36c. There is practically nothing for prompt shipment, and manufacturers are under heavy contract for later delivery.

Benzidine—The base has been steady, and with supplies somewhat light it is difficult to do better than $1.00 regardless of buyer or quantity. Where the scarcity is keen, $1.20 is named.

Dimethylaniline—This item is in scant supply for spot material, and holders are quoting 55c@60c. The market is under good inquiry with trading checked.

Diethylaniline—Buying is small but steady at $1.25 @$1.50.

Betanaphthol—45c@48c continues to be heard for spot, and the contract price is 42½c a pound for the distilled. The production is pretty well absorbed, and the market is firm at the above levels.

Alpha Naphthylamine—Sales are regular and generally confined to ton lots, which are quoted at 32c@38c per pound, depending upon source and quantity.

Paranitrotoluol—Jobbing quantities are found among second holders who are quoting at high levels. Manufacturers are booked ahead, and offerings from these sources are restrictel. Prices range between $1.15@ $1.40 per pound.

Paranitraniline—No change is recorded. Buying continues in good volume with prices strong at 93c@$1.10 per pound.

Paraphenylenediamine—Practically all the low grade material is off the market, and holders of the high test material are demanding $2.50 for ton lots and up to $3.25 for less quantities.

Phthalic Anhydride—Trading is limited and the inquiry light at 80c@90c per pound.

Orthotoluidine—A quiet market is reported with quotations at 25c@30c per pound.

Xylidine—A little firmer tone is in evidence, and quotations are stronger at 45c@50c per pound. However, there are offerings considerably below these figures.

Coal-Tar Crudes

Benzol—The inside price for spot in large quantities is around 30c and drum lots up to 33c. There has been practically no spot buying during the week. Although

there is very little material available, holders are experiencing difficulty in disposing of their goods.

Naphthalene—The demand for the flake is not especially strong at this time. However, producers are sold ahead, in directions. Car lots can still be obtained at 6c, and less quantities up to 7½c. The ball material is steady and unchanged at 8c@9½c.

Phenol—Offerings in outside channels have been comparatively few during the week, but the inquiry has been active for export. Government stocks are moving in good quantities at 12c.

Toluol—Trading in toluol has been limited. Supplies are not particularly heavy, and quotations are 24c@28c.

Dyewoods and Dye Bases

Archil—Stocks of archil are offered in small quantities only. Owing to the strong demand and the difficulty of getting shipments from primary points, importers are inclined to quote higher prices on future deliveries. Quotations are firm at 17c@20c for the double; 19c for the triple, and 20c@25c for the concentrated.

Annatto—The market has ruled quiet, and buying is practically at a standstill. Supplies are heavy at 5c @7½c for the seed, according to quality.

Cochineal—A very light inquiry, with actual sales limited, typified the market. Prices are soft at 64c@ 70c.

Gambier—Singapore cubes are in short supply and strong demand at 18c@20c. Stocks of the common are heavy, and holders are accepting business close to 7c. Java material is quiet at 14c@16c.

Fustic—Very little business is being placed on the various extracts which are in good supply on the basis of 22c@27c for the solid. Sticks and chips from primary points are light, owing to the quiet market.

Hematine—Buying is active, and prices are due to reach higher levels. The extract is in short supply at 11c@13½c for the 51-degree and 26c@28c for the 100 p. c. crystals.

Logwood—For the sticks, prices are unchanged at $25@$35 a ton. Chips are going strong at 2½c@4c. Shipments from primary points are light and, because of this and the increase in rates, the extract market is tending upward. Spot goods are held at 18c for the solid; 21c for the 100 p. c. crystals, and 10c@15c for the Twaddle.

Nut Galls—The Chinese type is under inquiry at 34c@35c.

Mangrove—Although the market on African stocks is pretty well cleaned up, sales at $45 a ton were reported during the week. However, the market appears to be $60@$75 with the majority of holders.

Quebracho—Solid material on spot is held at 12¼c and shipments to arrive at 11¼c. The position of stocks is tight, while the demand is heavy. 35 p. c. liquid is quoted at 7½c and the 35 p. c. tan, bleaching, at 8c a pound.

Commercial Attache Snow has cabled from Paris that the Chamber of Deputies has adopted a new detailed tariff schedule for dyestuffs and chemicals, including pharmaceuticals, and providing for free importation and government distribution of Geramn products covered in reparation annex six of the peace treaty, and further licensing of all German imports of those products in excess of treaty amounts. The bill has been referred to a committee of the Senate.

LICENSES FOR VAT DYE IMPORTS

The War Trade Board Section in the State Department is to issue to importers of dyes copies of vat dye allocation certificates explaining the licenses for importation of the German vat dyes that are to be used hereafter. The importer will be required to state the amount of dyes he requires for consumption in his plant during the six months' period October 1, 1919, to April 1, 1920. The War Trade Board Section is prepared to issue licenses for the importation of the vat dyes in accordance with the regulations that have been adopted by the Board.

All vat dye allocation certificates are issued by the War Trade Board Section on the express condition that the manufacturers to whom they have been issued shall file with the War Trade Board Section, on the dates specified, statements as follows:

On or before January 1, 1920, a sworn statement showing that the dyes covered by said certificates have been actually delivered to said manufacturers, or the reasons why such delivery has not been made.

On or before April 1, 1920, a sworn statement showing respectively, the amounts of said dyes which have been actually consumed during the above-mentioned six months' period, and the amounts thereof remaining in the hands of said manufacturer on said date.

Licenses for the importation of German vat dyes will be issued only when the duplications for import licenses are accompanied by vat dye allocation certificates issued by the War Trade Board Section.

OILS AND DYES IMPORTED BY JAVA

Following are the importations into Java and Madoera of fixed oils, tar and dyestuffs during the first three months of 1917, 1918 and 1919.

Nature of Goods and Country of Origin	First three Months 1917	First three Months 1918	First three Months 1919
Fixed Oils, Fats, Linseed Oil:	Liters	Liters	Liters
Holland	165,400	61,800	973,000
United States	5,200	125,100	20,000
Japan	600	108,800	678,000
Australasia	3,600	44,600	8,000
Elsewhere	2,400	5,300	119,000
	177,200	345,600	1,798,000
Tar, Coal:	Liters	Liters	Liters
Holland	113,682	.....	.....
Great Britain	97,650	36,080	.....
Singapore	15,000	.....	.....
Japan	149,467	1,090	12,030
Australasia	26,222	509	22,400
	402,021	37,679	34,430
Alizarine Dyes:	Kilos	Kilos	Kilos
Holland	12,585	.....	.....
Elsewhere	.....	.....	140
	12,585	.....	140
Aniline Dyes:	Kilos	Kilos	Kilos
Holland	12,496	8,450	560
United States	.....	8,214	500
Elsewhere	.....	6	33
	12,496	16,670	1,093
Artificial Indigo:	Kilos	Kilos	Kilos
Holland	.....	.....	2,640
France	.....	.....	16,230
Elsewhere	33	.....	48
	33	.....	18,918
Red Lead:	Kilos	Kilos	Kilos
Holland	72,912	15,467	73,938
Great Britain	47,000	50	29,505
France	14,000	150	.....
United States	155,713	168,817	101,965
Japan	1,770	34,351	34,792
Elsewhere	124	2,520	70
	291,519	221,355	240,270
Varnishes:	Liters	Liters	Liters
Holland	20,014	3,536	4,654
Great Britain	2,781	798	908
United States	5,079	6,180	16,833
Japan	.....	322	3,267
Elsewhere	486	.....	163
	28,360	10,836	25,825

The Oil Market

Current Spot Quotations of Oils, Page 42; Tallow, Greases, etc., Page 43.

VEGETABLE OIL STOCKS LOW

Renewed Buying Expected to Send Prices Upward Again—Weak Position of Linseed Oil Still a Feature of the Market—Argentine Crop of Flaxseed Large

PRICE CHANGES IN NEW YORK
(Stocks in First Hands)

Advanced

Coconut Oil, Ceylon, ½c lb.
Cochin, spot, 1c lb.
Manila Coast, ½c lb.
Peanut Oil, ref., ½c lb.
Soya Bean Oil, bbls., ¼c lb.

Declined

*Linseed Oil, 11c gal.
*Second hands

Trend of the Market

	Today	Last Week	Last Month	Last Year
Cod Oil, N. F.	$1.20	$1.20	$1.15	$1.45
Degras, Amer. bbls.	.07	.07	.07½	.22
Lard, No. 1	1.30	1.30	1.45	1.50
Menhaden, South, crd*	1.05	1.05	1.15	1.20
Neatsfoot, 20 deg. c.t.	2.25	2.25	2.15	3.19
Red Oil, Crude	.17	.17	.19	.17
Stearic Acid, T. P.	.30	.30	.31	.25
Coconut, Ceylon, dom. bbls.	.17½	.17	.19	.17½
Cottonseed, crude, tanks*	.16½	.16½	.22	.17½
Linseed, cars, bbls.	1.75	1.86	2.22	1.88
Olive, denatured	2.50	2.50	2.50	4.50
Peanut, refined	.26½	.26	.29	.21
Soya Bean, bbls.	.17¼	.17	.19	.18½

*F. O. B. Mills

Little activity has been noted in the oil market during the past week. The general tone, however, shows improvement and a better condition in the steadiness and firmness of prices has been reported. The gradual advance in the level of European exchanges is looked upon as a step in the direction of resumed export buying in the near future. At present little business is passing on the spot, and several leading houses report that they have had an exceptionally small number of inquiries during the week. At the same time, there are no top-heavy accumulations of oils or greases of any kind on this market; in fact, reserve stocks are small. The logical consequence of this condition of the market, with a renewal of buying, will be to send prices upward again.

The weak position of linseed oil is attracting the chief interest just at present. Within a few weeks this product has fallen from its former very strong position to a point where second hands are sharply underselling crushers. The latter, however, are evidently not worried very much at this condition as they are still exceptionally busy handling their contracts. As supplies of flaxseed continue to pour into the shipping points of Argentina, the prices slide off steadily. People in the trade here are only beginning to realize the true size of the South American crop as compared with the figures which were given to represent its proportions by the shippers at the source.

Vegetable Oils

With the exception of linseed oil, there have been but few price revisions among the vegetable oils this week. Coconut is quiet and steady with a tendency to stiffen somewhat. Cottonseed is firm and unchanged with a rather confident attitude on the part of producers and holders. Olive is steady and firm without change. Peanut is a trifle stiffer. Corn oil is easy with few buyers. Soya bean oil shows a tendency toward slight improvement.

Linseed Oil—Plenty of second hand oil is available on the spot for immediate delivery at $1.75 a gallon in barrels. Crushers continue to maintain their former quotations at the recent decline, naming $1.86 for car lots in barrels. Seed at South American shipping points continues to decline in prices as large quantities arrive on the coast for export. Argentina seed at Buenos Aires is in the neighborhood of $2.50 a bushel. The price in Duluth is about $3.75. The size of the Argentina crop is a revelation to American buyers who had been "fed up" on small crop talk. Although the position of the oil here at present is comparatively weak, crushers do not seem to be evidencing fear as to the future. Practically their entire outputs are taken care of by contract. They will undoubtedly allow second hands to get their goods into consuming channels without reducing prices to meet them and thus clear the market of any weak holdings. The buyers who are in a bad position are those who contracted for oil a month or so ago at prices above the current second hand figure.

Cottonseed Oil—Crushers are still maintaining that the price of the oil should be well above its present level based on crop reports, but buying interests do not seem to see the argument this way. Prices have been firm and unchanged during the week. If any tendency at all is present in the market for this item, it is upward. Crude oil is quoted at the mills in sellers' tanks at 16c@16½c. Very little crushing of seed is taking place at the present time. For the refined oil, 22c is still quoted for prime summer yellow, while winter yellow oil is obtainable at 23c.

Coconut Oil—On the Coast, tank cars of Manila oil are being sold at 16c a pound. This represents a slightly firmer position as compared with last week. There is a more confident tone among the sellers. On the spot Ceylon oil is higher at 17½c@18c in barrels, while it is very difficult to do 16c for tanks. Cochin oil is not very plentiful. Lots are offered at 19½c@20c in barrels, with most holders asking the higher figure. Supplies on the spot and rolling here are not large enough, according to the trade, to take care of the demand, which is expected to liven up within a short time. Buying during the week has been light.

Corn Oil—The general tone of the corn oil market is easy. Demand is reported at a standstill. The product is in a rather uncertain position, neither buyers nor sellers knowing just exactly what will be the next turn. For crude at the mills in tank cars, 16c is the price. For refined oil, 24c@24½c is about the general range. Crushers are asking higher and some second hands lower than this figure.

Olive Oil—Stocks of olive oil, both edible and denatured, are far from large in this market. Prices are very firmly maintained at $3.00@$3.15 per gallon for the edible and $2.50 for the denatured. Demand is steady. It is reported that offers of shipments out of Spain the latter part of this month have been made, although it was expected in the trade that no further arrivals would come here before December or January.

Peanut Oil—A slightly firmer tone has been reported for peanut oil, both Oriental and domestic. On the Coast, 20c a pound is being named for the Asiatic product. Crude American oil at the mills is being

quoted at 22c. Refined oil on the spot in barrels can be had at 26c a pound.

Soya Bean Oil—A tendency to become firmer is also noted in bean oil. More interest is being displayed by buyers in this product. On the Coast, 14½c can still be done, while up to 15c is getting business. Spot oil in barrels is quoted at 17c@17½c a pound. For the edible, 20c is the price here.

Animal Oils

Animal oils, as far as the general condition of the market is concerned, have been stationary during the week. There have been no changes in prices, nor have there been any tendencies one way or the other. Most of the items on the list are quiet and easy.

Lard Oil—Prices are unchanged at $1.80@$1.85 a gallon for prime, $1.70@$1.75 for off prime, No. 1 at $1.30 and No. 2 at $1.20 a gallon. There is very little demand reported at present.

Red Oil—This product is quiet and easy with spot prices steady at 17c@17½c a pound for both the crude oleic acid and the saponified. For later delivery, better than 17c is being done.

Stearic Acid—There is a quiet, steady tone to stearic acid with spot supplies none too large. For single pressed, 27½c a pound can be done on the spot, while for double pressed, 28½c is the price. Triple is named at 30c upward as to quantity and seller.

Fish Oils

Demand has been very limited during the past week. Prices are unchanged, and the general fish oil market is quiet and dull.

Cod Oil—This item is the leader among the fish oils with fair quantities moving at $1.15 a gallon for the domestic. Newfoundland oil is named at $1.20.

Menhaden Oil—Demand is at a standstill. Buyers do not seem to be interested at the present time. Prices are the same as last week, $1.05 per gallon being named for crude oil in barrels at the plants.

AMERICA TO HOLD VEGETABLE OIL TRADE

John B. Gordon, of Rogers, Brown & Company, who recently returned from Europe where he made an investigation of the vegetable oil situation, says Europe will continue to make heavy demands on this season's crop of vegetable oils and fats. He continued:

"America will not relinquish to Europe the business which it developed during the period of the war in Oriental oils and Philippine coconut oil, nor in copra from the South Seas and the Philippines. Marseilles crushers and refiners, who enjoyed a great volume of this business in pre-war days admit this fact. They are of the belief that the growing tendency to crush oil seeds at their point of origin will work against the interests of Marseilles crushers and refiners and to the advantage of American crushers.

"Hamburg, owing to the lack of German shipping, will not be a serious competitor, and the English crushers and refiners are so engrossed with the problem of handling the enormous volume of palm kernel business, which they have wrested from Germany, that they are not apt to molest America in further strengthening its hold on the Oriental oil field and the Philippine and the South Seas copra situation. Another factor which will work strongly in America's favor is the bulk storage for vegetable oil on the Pacific Coast, enabling this country to handle vastly larger volumes of vegetable oils than Europe until European ports are similarly equipped."

CONTROL OF VEGETABLE OIL MARKET BY GREAT BRITAIN WEAKENS PRICES

Shipments From the Far East Handled Through Vancouver—Pronounced Decline in the Principal Oils—Rapeseed Oil and Cotton Seed and Castor Oil Lower

(*Special Correspondence to* DRUG & CHEMICAL MARKETS)

Tokyo, Japan, Sept. 18.—The vegetable oil market is weakening markedly as the speculative demand is dwindling on account of Great Britain's proclamation of her decision to control the import and distribution of vegetable oils. Some of the principal oils have already witnessed a fair decline, but they are expected to decline further.

Peanut oil and coconut oil have been so far consigned to a considerable extent to Vancouver. Apparently they have been transmitted thence to England. This business is now dwindling fast and only occasional inquiries are to hand from the United States. Only the comparative scarcity of the visible stock here serves to prevent a sharper decline. Peanut oil is now quoted at yen 50 per picul while coconut oil is quoted at yen 38.50 per picul.

Soya bean oil is sharing the same fate. Much hope was based on Europe's demand for this oil and some time ago a report was circulated in the vegetable oil market to the effect that the stock of soya bean oil destined for Europe was running up to a huge size, but it is clear now that only fair business has been done in this oil. It is furthermore being placed under Governmental control by Great Britain. The oil is falling away. Some Tokyo holders who so far maintained their price firmly at yen 23 per case, are in the market to offer their goods at yen 22.50 per case.

Rapeseed oil has been hit the hardest by Great Britain's proclamation, which has put all speculators to flight, and the big stock held by them is now coming on the market for sale. Unbleached is down to yen 20.70 per case. Even bleached can be obtained at yen 24 per case, which was the figure for unbleached, a week or so ago. Although holders seem to hope for a quick recovery, their hope is believed to be vain.

Cotton seed and castor oil have also fallen away rather badly. Castor oil which was offered at yen 40 per picul some time ago, is now obtainable at yen 36 per picul. China wood oil, sesame seed oil and linseed oil are, however, unchanged. Although the buyers remain inactive and business is only put through occasionally in these oils the prices are maintained on account of the firm stand of their producers.

Exports of oil cake from Vladivostock, Siberia, during the first three months of this year amounted to 149,000 poods, or 5,364,000 avoirdupois pounds, shipped entirely to Japan.

More than 2,368,250 pounds of soya bean oil were imported into this country from one Chinese town alone during the first six months of this year, value of which was placed at $269,346.

It is reported that Lever Bros. are negotiating to buy Brunner, Mond & Co's soap business. Brunner, Mond & Co. is one of the largest manufacturers of alkali products in the world.

Over 155 tons of China wood oil, with 256,000 gallons of various other kinds, which include a large quantity of storm oil, are for sale, by tender, in England by the Disposal Board of the Ministry of Munitions.

The Foreign Markets

Imports of Drugs, Chemicals, Dyestuffs, etc., pages 43 and 44.

LONDON DRUG MARKET UPSET BY STRIKE

Several Mincing Lane Auctions Suspended—Menthol Higher, and Camphor and Japanese Oil of Peppermint Very Firm—Quicksilver and the Mercurials Lower

London, Oct. 7.—Business has been restricted for a week by the general railroad strike which was settled today. Several Mincing Lane auctions had to be suspended.

There is a higher market on menthol, as much as 41 shillings a pound being paid. Cocaine and ergot are also higher.

Prices are very firm on camphor and Japanese peppermint oil. Cloves and clove oil are firmer.

There is an easier market on fenugreek, phenazone, sodium acetate and sodium phosphate.

Quicksilver and the mercurials are lower, and vermilion and shellac.

London, Sept. 27 (by mail)—The Government Department for Export Credits has been opened and a sum of twenty-six millions sterling has been provisionally set aside to assist the export trade with Finland, Lativia, Esthonia, Lithuania, Poland, Czecho-Slovakia, Jugo-Slavia and South Russia. The intention is to make use of the organization of the banks to the greatest possible extent, and their machinery will be utilized in carrying out the routine work.

No business will be entertained which a bank is prepared to do itself. For this reason applications for credits will only be received through a bank. Should the bank decline to finance the proposed business, it passes its client's application to the Export Credit Department. If accepted 80 per cent is advanced to the exporter on shipment of the goods and production of documents. In such case the State assumes the risk of delcredere i.e. without having recourse to the exporter for payment. This scheme, it is hoped, will overcome the impasse in which traders in these countries had of late found themselves through the heavy depreciation in exchange and their inability to obtain Sterling Credits.

The adjustment of accounts left open at the start of the War, as between this country and Germany will be entrusted to an International Clearing House in Paris, but from enquiries made through the Chambers of Commerce, it would appear that the necessary machinery is not yet completed. The fixing of rates of exchange will doubtless prove a knotty question, since the equivalent of the German mark is about 2 pence—4 cents—as against its pre-war value of 12 pence, or 24 cents. The question of interest over the last five years will also have to be solved.

The administration council of the Almaden mines at its session on August 12, 1919, taking into account the quotations of quicksilver in the London markets during the month of July and the average rate of exchange of the pound sterling, decided that the price for national industries of a flask of quicksilver of 34,507 kilos (76 pounds), effective on that date, shall be 451 pesetas ($87) if delivery be taken at the mine, or 453 pesetas ($87.42) if placed aboard railway car at the station of Almadenejas.

JAVA PRICES FOR SPICES AND OILS

(*Special Correspondence to* DRUG & CHEMICAL MARKETS)

Buitenzorg, Java, Aug. 15.—The market conditions for spices, oils, gums and tin are reported by Hermans, Marsman & Co., Batavia, as follows:

Black Lampong pepper, crop of 1919, although strong, was somewhat easier at the close of the period, owing to competitive conditions. The prices paid by exporters ranged from Glds. 51.75 to 48.75 per picul for future deliveries. In white Muntok pepper, export requirements were heavy, and sellers jumped the price to Glds. 93.00 per picul for prompt delivery of 1918 crop and to Glds. 90.50@91.50 for August-October delivery of 1919. These prices were prevailing at the close of the trading period.

The market for copra opened somewhat weaker, but grew steadily in strength, and at the close of the month there were no offerings available of fair merchantable sun-dried quality at less than Glds. 31.75 to 32.00 per picul, exclusive of gunny bags, on the spot. In good, dry product for export, including bags, on basis of 5-6 per cent moisture, sellers are doing business at Glds. 34.50 to 36.50, for August-September delivery.

Coconut oil is again in strong demand, and although easier it is apparent that with the season of greatest consumption in Western countries at hand, demand will soon reduce spot stocks. The closing quotations were Glds. 60.00 to 61.00, according to quality, for oil packed in cases and tins, and Glds. 64.00 to 65.00 per picul for oil in barrels.

Gum damar, Sumatra-Pontianak quality, Batavia assortment, is in a stronger and higher position. During the first half of the trading period there were buyers at prices ranging from Glds. 55.00 to 57.50 per picul. Since then no further sales have been reported. At the close of the month Glds. 63.00 per picul was the nominal quotation.

Citronella oil continues in a somewhat dull position. Oil containing not less than 85 per cent geraniol closed at Glds. 2.50 to 2.60 per kilo, excluding drum, and at Glds. 3.00 to 3.05 per kilo, including drum.

Cocoa beans are in better request. Exporters took up fairly good sized quantities during the month, and the price paid for prime quality could rise from Glds. 85.00 to 90.00 per picul for prompt shipment.

There was a fair demand for peanuts throughout the period. Export requirements were larger than supplies, especially in the case of Cheribon decorticated nuts, for which sellers jumped the price to Glds. 37.00 @37.50 for prompt delivery and to Glds. 34.00 to 38.00 for August-October delivery, according to quality. The movement was strongly maintained at the close, when stocks were said to have been sharply reduced.

The market for tin was marked for its steady strength throughout the month. Prices sharply advanced on lowered stocks, and the close was very strong. Holders of supplies quoted firmly at Glds. 178.00 per picul.

Consul General Edwin N. Gunsaulus has cabled from Singapore under date of September 17 that under new regulations the importation of dyestuffs into the Straits Settlements, except those manufactured within the British Empire, is prohibited unless a license is obtained from the Governor.

SHORTAGE OF MENTHOL FELT IN TOKYO

New Forecast of Year's Production Shows Small Output and Prices Go Up—Narcotics Decline in Price —Mercury Active and Higher

(*Special Correspondence to* DRUG & CHEMICAL MARKETS)

Tokyo, Japan, Sept. 18—The drug market has become fairly active after being very quiet during late August. Buyers are resuming consultations over their winter needs and are buying on larger scale. In some stock the strength revealed is greater because the visible stock is comparatively short.

Santonin is advancing rapidly; it has been ranging from yen 110 to yen 170 per pound, but is now quoted at yen 200. The producers are inclined to hold their stock for higher prices, hoping in that way to break even with the higher wages they are now forced to pay.

Citric acid is poorly stocked and its price is kept up to yen 1.85 per pound. Producers say they cannot meet the increasing demand because labor is short and expensive.

Menthol and peppermint oil have achieved another sharp jump and the market is tinged with speculative coloring. The principal support of both menthol and peppermint oil is the export trade and yet with slackening demand from overseas the price is still on the upgrade. The lost trade with Europe is expected to be restored and according to rumors some exporters are trying to corner the market. Before the war Germany was Japan's biggest customer for menthol and peppermint.

The second forecast of the year's production encourages the present prices; the new forecast in Okayama is expected to show a decrease of 50,000 kin as compared with the forecast made two months ago and in Hokkaido the new forecast will show a decrease of 100,000 kin over the previous report. The general opinion is that the high cost of grains and vegetables will curtail the production in Japan this year at least 30 per cent. Menthol crystals are quoted at yen 26 per kin, which is 100 per cent higher than at this time last year, and peppermint oil has gone up to yen 6 per kin.

Camphor is still soaring and today camphor canes are quoted at yen 640 per 100 pounds, an advance of yen 10 in one month, and prices were abnormal a month ago. The domestic and foreign demand is increasing out of proportion to the present supply. Camphor oil is not as short as the canes, but manufacturers are sending up prices, claiming that all their men are demanding higher wages; the price of the oil is now yen 43 per picul.

Mercury which has had a lull for some time is emerging from its lethargic condition quite suddenly. It is now quoted at yen 420 per picul. According to an important factor in the chemical market quicksilver has advanced not because of any increase in demand, but on account of the decrease in the visible stock here owing to the restricted arrival from overseas.

Narcotics show signs of weakness. Morphine, cocaine and atropine are overstocked. Morphine is going downward out of all proportion with the general trend of the drug market. Morphine hydrochloride is quoted here at yen 36 per oz., which is a substantial decline compared with the price in the earlier months of this year and is a yen 2 drop since August 10. Heroine hydrochloride has been even more rapid in its decline, offers being made now at yen 32 per oz. and August 10 it was quoted at yen 36. Cocaine hydrochloride is quoted at yen 20.50 per oz. Atropine is also quiet and heavy, atropine sulphate being quoted at yen 11 per 3½ grams.

Belladonna extract is in its buying season, but the manufacturers do not supply their products freely and the market is poorly stocked. The price tends upwards, being quoted at yen 1.85 per pound.

Saccharine is forming a feature in the drug market at present. The Home Office is still hesitant as to the removal of the restriction on its use as a foodstuff or a substitute for sugar, but the Central Health Council stands for the release of saccharine from the official ban and the market is hopeful. The visible stock of saccharine in this country is very small and even if the ban is removed no big business can be transacted. The drug market has already sent up the price to yen 5.80 per 25 grams.

Shellac is now reacting. The product has been swiftly advancing for several weeks on the strength of speculative purchases. Buyers have apparently relied upon the report that in India the supply is fast falling off. This condition of the supply has not yet changed, but speculators have reached the limit and business in shellac is on the ebb. It is now quoted at yen 240 per picul, which is a decline of yen 5.

JAVA'S CHEMICAL IMPORTS

Statistics showing the importation of chemicals in Java and Madoera during the first three months of 1919 in comparison with the same period in 1918 and 1917 have just been issued as follows:

Nature of Goods and places of Origin	Jan., Feb. March, 1917	Jan., Feb. March, 1918	Jan., Feb. March, 1919
Alum:	Kilos	Kilos	Kilos
Singapore	165,000	8,000	4,000
Japan	79,000	24,000	40,000
Elsewhere	26,000	8,000	.....
	270,000	40,000	44,000
Calcium Carbide:	Kilos	Kilos	Kilos
Holland	6,500	.....	.....
United States	116,000	302,000	50,000
Japan	84,000	142,000	33,000
	206,700	444,600	83,000
Caustic Soda:	Kilos	Kilos	Kilos
Great Britain	39,000	23,000	300,000
United States	215,000	155,000	112,000
Singapore	20,000	.....	11,000
Japan	28,000	102,000	6,000
Elsewhere	32,000	21,000	.....
	334,000	299,000	429,000
Sodium Carbonate:		Kilos	Kilos
Holland	is not men-	45	100
Great Britain	tioned in	139,202	248,933
United States	the statis-	206,015	151,018
Japan	tics before	23,785	60,532
Elsewhere	1918	.....	120
		369,047	460,703
Copper Sulphate:	Kilos	Kilos	Kilos
Holland	7,000	.....	.....
United States	17,000	4,000	.....
Japan	29,000	16,000	16,000
	53,000	20,000	16,000
Ferrous Sulphate:	Kilos	Kilos	Kilos
Great Britain	42,000	.....	.....
Japan	154,000	1,000	2,000
	196,000	1,000	2,000
Sulphuric Acid:	Kilos	Kilos	Kilos
Holland	7,350	.....	.....
United States	13	1,250	500
Singapore	.....	.....	6,435
Japan	22,243	153,852	95,115
	22,606	155,102	102,050

(Handelsberichten)

In the Dutch East Indies 12,357 piculs and 41,574 piculs of Government Banka tin were sold in the months of June and July, 1919, at 1,958,000 florins and 6,830,000 florins. The average price per 56 kilos was 128.82 florins. The average price per 56 kilos was 128.82 florins in June, 133.56 florins in July.

Prices Current of Fine and Heavy Chemicals, Drugs, Essential Oils, Dyestuffs and Oils

NOTICE—The prices herein quoted are for large quantities in original packages. All prices are quoted on a basis of avoirdupois pounds and ounces and American gallons. Where the price of a product is indicated by two sets of figures separated by a dash (.16 — .19), it means that various manufacturers or importers of the item quote different prices which are all included within this range.

For the ready reference of foreign buyers, the following table of equivalents is published:

1 Imperial Gallon (Brit.)—1.20 Amer. Gallons
1 American Gallon—.833 Imperial Gallon
1 American Gallon—3.79 liters
1 Liter—.264 American Gallon
1 American Gallon (H_2O) weighs 8 pounds
1 Pound (Avoirdupois) weighs .454 kilogram
1 Kilogram weighs 2.20 pounds (Avoirdupois)

Fine Chemicals

Acetanilid, C.P., bbls., blk.	lb.	—	— .46
Acetone	lb.	.13½	— .15
Acetphenetidin	lb.	2.25	— 2.30
Aconitine, Sulph., ½-oz. vials	ea.	—	— 2.55
Adeps Lanae, hydrous	lb.	—	— .20
Anhydrous	lb.	—	— .26
Alcohol 188 proof	gal.	—	— 4.70
190 proof, U.S.P.	gal.	—	— 4.75
Cologne Spirit, 190 proof	gal.	—	— 5.00
Wood, ref. 95 p.c.	gal.	1.30	— 1.33
97 p.c.	gal.	1.33	— 1.36
Denatured, 180 proof	lb.	.52	— .54
188 proof	lb.	.56	— .58
Aldehyde	lb.	1.25	— 1.45
Aloin U.S.P., powd.	lb.	1.00	— 1.05
Ammonium, Acetate, cryst.	lb.	.65	— .70
Benzoate, cryst., U.S.P.	lb.	—	— 4.00
Bichromate, C. P.	lb.	.95	— 1.00
Bromide, gran., bulk	lb.	.54	— .55
Carb. Dom. U.S. kegs, powd.	lb.	.12	— .12¾
Chloride U.S.P.	lb.	.24	— .25
Hypophosphite	lb.	2.10	— 2.15
Iodide	lb.	—	— 4.85
Molybdate, Pure	lb.	—	— 4.15
Nitrate, cryst., C. P.	lb.	.25	— .26
Gran.	lb.	—	— .54
Oxalate, Pure	lb.	.83	— .85
Persulphate	lb.	.95	— 1.05
Phosphate (Dibasic)	lb.	.50	— .60
Salicylate, U.S.P.	lb.	.95	— 1.00
Amyl Acetate, bulk, drums	gal.	3.65	— 3.75
Antimony Chlor. (Sol. butter of Antimony)	lb.	.18	— .20
Needle powder	lb.	.09	— .11
Sulphate, 16-17 per cent free sulphur	lb.	.35	— .74
Antipyrine, bulk	lb.	5.00	— 5.50
Apomorphine Hydrochloride	oz.	—	—26.80
Argols	lb.	.08	— .11
Arsenic, red	lb.	.23	— .25
White	lb.	.09¾	— .10
Aspirin	lb.	.80	— .95
Atropine, Alk. U.S.P., 1-oz v.	oz.	—	—30.00
Sulphate, U.S.P., 1-oz. v.	oz.	17.00	—18.00
Barbital	oz.	—	— 2.25
Barium Carb. prec., pure	lb.	.28	— .29
*Chlorate, pure	lb.	.50	— .60
Bay Rum, Porto Rico	gal.	—	— 3.18
St. Thomas	gal.	—	— —
Benzaldehyde (see bitter oil of almonds)			
Benzonaphthol	lb.	4.25	— 4.50
Berberine, Sulphate, 1-oz. c. v.	oz.	2.50	— 3.00
Bismuth Ammon. Citr., U.S.P.	lb.	—	— 5.80
Citrate, U.S.P.	lb.	—	— 3.60
Oxide, pd.	lb.	—	— 3.90
Oxychloride	lb.	—	— 3.30
Salicylate	lb.	—	— 3.05
Subbenzoate	lb.	4.70	— 4.75
Subcarbonate, U.S.P.	lb.	—	— 3.30
Subgallate	lb.	—	— 3.30
Subiodide	lb.	—	— 5.45
Subnitrate	lb.	—	— 3.00
Bismuth Subsalicylate	lb.	—	— 3.60
Tannate	lb.	—	— 2.80
Borax, in bbls., crystals	lb.	.07½	— .08
Crystals, U.S.P., Kegs	lb.	.08	— .08¼
Bromides, See Potass. Brom., etc.			
Bromine, tech., bulk	lb.	—	— .55
Cadmium Bromide, crystals	lb.	1.75	— 1.80
Iodide	lb.	—	— 4.40
Metal sticks	lb.	1.40	— 1.45
Caffeine, alkaloid, bulk	lb.	—	— 7.25
Hydrobromide	lb.	8.50	— 9.00
Citrated, U.S.P.	lb.	6.00	— 6.25
Phosphate		10.00	—11.00
Sulphate	lb.	9.50	—10.00
Cadmium Bromide, crystals	lb.	1.75	— 1.80
Iodide	lb.	—	— 4.60
Phosphate, Precip.	lb.	.21	— .23
Sulphocarbolate	lb.	.85	— .90
Calomel, see Mercury.			
Camphor, Am. ref'd bbls. bk.	lb.	—	— 3.30
16's in 1-lb. carton	lb.	—	— 3.75
24's in 1-lb. carton	lb.	—	— 3.75
32's in 1-lb. carton	lb.	—	— 3.75
Japan refined, 2½ lb. slabs	lb.	—	— 3.65
Monobromated, bulk	lb.	4.50	— 4.55
Caramel	lb.	1.05	— 1.10
Casein, C. P.	lb.	.45	— .49
Castor Oil, AA bbls.	lb.	—	— .21
Cerium Oxalate	lb.	—	— .80
Heavy	lb.	.04	— .06
Chloral Hydrate, U.S.P. crystals, drums incl'd 100lb. lots	lb.	—	— .95
Chloroform, drums, U.S.P.	lb.	—	— .30
Cinchonidin, Alk. crystals	oz.	—	— 1.06
Chrysarobin, U.S.P.	lb.	—	— 4.00
Cinchonine, Alk., crystals	oz.	—	— .61
Sulphate	oz.	—	— .35
Citrates, See Iron Citrate, etc.			
Cocaine, Hydrochl. gran.	oz.	—	— 9.50
cryst., bulk	oz.	—	— 9.75
Cocoa Butter, bulk	lb.	—	— .47
Cases, fingers	lb.	.50	— .52
Codeine, Alk., 10-oz. lots	oz.	—	—10.65
Nitrate	oz.	—	— 9.55
Phosphate	oz.	—	— 8.00
Sulphate	oz.	—	— 8.50
Cod Liver Oil, New'f'd.	bbls.	—	—90.00
Norwegian	bbl.	—	—130.00
Collodion, U.S.P.	lb.	.35	— .37
Corrosive Sublimated, see Mercury			
Coumarin, refined, see Aromatic Chemicals			
Cream of Tartar, cryst. U.S.P.	lb.	.53	— .55
Powdered, 99 p.c.	lb.	.53	— .55
Creosote, U. S. P.	lb.	1.25	— 1.30
Carbonate	lb.	—	— 7.50
Cresol, U.S.P.	lb.	.22	— .25
Dionin, See Morph. Ethyl Hydrochl.			
Dover's Powder, U.S.P.	lb.	2.80	— 3.00
Emetine, Alk., 15 gr. vials	ea.	—	— 2.00
Hydrochloride, U.S.P.	oz.	34.00	—35.00
15 gr. vials	ea.	—	— 1.35
Epsom Salts, see Mag. Sulphate			
Ether, U.S.P., Conc.	lb.	—	— .19
Washed	lb.	—	— .26
Nitrous, conc.	lb.	1.10	— 1.11
U.S.P., 1880	lb.	—	— .34
Anaesthesia	lb.	—	— .23
Eucalyptol, U.S.P.	lb.	1.20	— 1.25
Formaldehyde		.22½	— .24½
Gelatin, silver	lb.	1.10	— 1.15
*Gold	lb.	—	— —
Glycerin, C. P.,			
Drums and bbls. added	lb.	—	— .20
C. P. in cans	lb.	—	— .22
Dynamite, drums included	lb.	—	— .19½
Saponifications, loose	lb.	—	— .13
Soap Lye, loose	lb.	—	— .12½
Guaiacol, liquid	lb.	—	—10.00
Crystals	lb.	—	—13.00
Carbonate	lb.	—	—12.00
Guarana	lb.	—	— .85
Haarlem Oil, dom.	gross	—	— 4.50
Imported	gross	—	— 6.00
Hexamethylenetetramine	lb.	1.00	— 1.05
Hydrogen Peroxide, U.S.P., 10 gr. lots			
4-oz. bottles	gross	—	— 7.25
12-oz. bottles	gross	—	—16.25
16-oz. bottles	gross	—	—19.25
Hydroquinone, bulk	lb.	1.80	— 1.85
Iodides, See Potass. Iodide, etc.			
Iodine, Resublimed	lb.	—	— 4.50
Iodoform, Powdered, bulk	lb.	—	— 5.25
Crystals	lb.	—	— 5.75
Iron Citrate, U.S.P., VIII.	lb.	—	— 1.28
and Ammon. Citrate, U.S.P.	lb.	—	— 1.13
Green scales, U.S.P.	lb.	—	— 1.41
Iodide	lb.	—	— 4.25
Phosphate, U.S.P.	lb.	—	— 1.08
Pyrophosphate, U.S.P.	lb.	—	— 1.13
*Kamala, U.S.P.	lb.	—	— 4.00
Lanolin, hydrous, cans U.S.P.	lb.	—	— .20
Anhydrous, cans	lb.	—	— .26
Lead Iodide, U.S.P. VIII.	lb.	—	— 3.40
Licorice, U.S.P., Mass.	lb.	.58	— .60
Powdered	lb.	.90	— 1.00
Lithium Carbonate	lb.	—	— 1.30
Citrate	lb.	—	— 2.50
Lupulin	lb.	2.25	— 2.50
Lycopodium, U.S.P.	lb.	1.80	— 1.85
Magnesium Carb. U.S.P. bbls.	lb.	.12	— .12½
Glycerophosphate	lb.	—	— 4.35
Hyphophosphite	lb.	1.65	— 1.70
Oxide, tins light	lb.	—	— 1.10
Peroxide, cans	lb.	—	— 2.15
Salicylate	lb.	.60	— .65
Sulphate, Epsom Salt, tech. 100-lbs.		—	— 2.25
U.S.P. 100-lbs.		2.50	— 2.75
Manganese Glycerophos	lb.	3.25	— 3.35
Hypophosphite, U.S.P., VIII	lb.	2.00	— 2.10
Iodide	lb.	—	— 5.00
Peroxide	lb.	.75	— .80
Sulphate, crystals	lb.	—	— .55
Menthol, Japanese	lb.	9.75	—10.00
Mercury, flasks, 75 lb.	ea.	—	—100.00
Bisulphate	lb.	—	— 1.34
Blue Mass	lb.	—	— .84
Powdered	lb.	—	— .86
Blue Ointment, 30 p.c.	lb.	—	— .82
50 p.c.	lb.	—	— 1.15
Citrine Ointment	lb.	—	— .60
Calomel, Amer.	lb.	—	— 1.76
Corrosive Sublimate cryst.	lb.	—	— 1.63
Powdered, Granular	lb.	—	— 1.58
Iodide, Green	lb.	—	— 4.11
Red	lb.	—	— 4.21
Yellow	lb.	—	— 4.11
Red Precipitate	lb.	—	— 1.93
Powdered	lb.	—	— 2.03
White Precipitate	lb.	—	— 2.05
Powdered	lb.	—	— 2.10
with chalk	lb.	—	— .84
Methyl salicylate, see Aromatic Chemicals			
Methylene Blue, medicinal	lb.	—	—12.00
Milk, powdered	lb.	.22	— .23
Mineral Oil, white	gal.	1.00	— 2.00
Morphine, Acet., 25-oz.	oz.	—	— 8.80
Hydrochloride	oz.	—	— 8.80
Sulphate	oz.	—	— 8.80
Diacetyl. Alkaloid 10-oz.	oz.	—	—13.10
Diacetyl. Hydcl.	oz.	—	—11.85
Ethyl Hydcl.	oz.	—	—13.45
Naphthalene, See Coal Tar Products.			
Olive Oil, See Oils, Pg. 27			
Opium, cases, U.S.P.	lb.	7.50	— 8.00
Granular	lb.	—	— 9.25
Powdered, U.S.P.	lb.	—	— 9.25
Oxgall, pure U.S.P.	lb.	1.50	— 1.55
Papain	lb.	3.50	— 4.00
Paraffin White Oil, U.S.P. gal.		3.10	— 3.60
Paris Green, kegs	lb.	.30	— .31
Petrolatum, light amber bbls.	lb.	.05½	— .06
Cream White	lb.	.07	— .08
Lily White	lb.	.09¼	— .10
Snow White	lb.	.13	— .13½
Phenolphthalein	lb.	1.75	— 1.80
Phosphorus, yellow	lb.	—	— .35
Red	lb.	.68	— .70
Pilocarpine	oz.	—	— 9.50
Podophyllin	lb.	—	— 6.50
Potassium acetate	lb.	—	— 1.00
Bicarbonate, U.S.P.	lb.	.22	— .23
Bisulphate	lb.	.45	— .60
C. P.	lb.	.75	— .85
Bromide Crystals, bulk	lb.	.50	— .55
Granulated	lb.	.49	— .50
Chlorate	lb.	.19	— .20
Chromate, crystals, yellow, tech. 1-lb. c. b. 10	lb.	—	— .75
Citrate, bulk, U.S.P.	lb.	—	— 1.84
Glycerophosphate, 75%	oz.	1.75	— 1.80
Hypophosphite, bulk	oz.	1.95	— 2.00
Iodide, bulk	lb.	3.50	— 3.55
Lactophosphate	oz.	—	— 1.00
Permanganate, U.S.P.	lb.	.55	— .56

*Nominal.

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SOLUBLE COTTON AND ITS SOLVENTS
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Quinine Minor Alkaloids and Salts
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NYQ

Morphine and its Salts
Potassium Iodide
Quinine and its Salts
Strychnine and its Salts
Thymol Iodide

Fine Chemicals, Acids, and Crude Drugs

Potassium Salicylate	lb.	1.55	— 1.60
Sulphate, C.P.	lb.	1.11	— 1.16
Tartrate, powdered	lb.	—	— 1.25
Procaine, oz. bottles		7.00	— 7.50
5 gr. bottles		1.50	— 1.60
Quicksilver, See Mercury			
Quinine Sulph., 100-oz. tins	oz.	—	— .80
1-oz. tins	oz.	—	— .88
Second Hands, Java	oz.	1.50	— 1.60
Second Hands, American	oz.	1.50	— 1.60
Bisulphate, 100-oz. tins	oz.	—	— .80
Alkaloid	oz.	—	— 1.17
Acetate	oz.	—	— 1.17
Benzoate	oz.	—	— 1.17
Citrate	oz.	—	— 1.17
Dihyd'chloride	oz.	—	— 1.17
Hydrochloride	oz.	—	— 1.07
Hypophosphite	oz.	—	— 1.17
Phosphate	oz.	—	— 1.07
Salicylate	oz.	—	— 1.07
Tannate	oz.	—	— .80
Quinidine Alk. crystals, tins	oz.	—	— 1.06
Sulphate, tins	oz.	—	— .70
Resorcin crystals, U. S. P.	lb.	6.00	— 6.25
Rochelle Salt, crystals, bxs.	lb.	—	— .43
Powdered, bbls.	lb.	—	— .43
Rosewater, triple	lb.	11.50	—12.00
Saccharin, U.S.P., soluble	lb.	3.50	— 3.75
U.S.P., Insoluble	lb.	3.50	— 3.75
Salicin, bulk	lb.	—	—30.00
Salol, U.S.P., bulk	lb.	.85	— .90
Santonin, cryst., U.S.P.	lb.	—	—110.00
Powdered	lb.	—	—110.00
Seidlitz Mixture, bbls.	lb.	—	— .33½
Silver nitrate, 500 oz. lots	oz.	.73	— .74
Soap, Castile, white pure	lb.	.28	— .36
Powd. U.S.P., bbls.	lb.	.41	— .42
Marseilles, white	lb.	.19	— .20
Green, pure	lb.	.15	— .16
Ordinary	lb.	.15	— .16
Sodium, Acetate, U.S.P. gran.	lb.	.25	— .29
Benzoate, gran. U.S.P.	lb.	.80	— .85
Bicarb. U.S.P., powd., bbls	lb.	.02¼	—.02½
Bromide, U.S.P., bulk	lb.	.49	— .50
Cacodylate	oz.	—	— 1.40
Chlorate, U.S.P. 8th Rev. crystals, c.b. 10	lb.	.15½	— .16
Granular, c.b. 10	lb.	—	— .20
Citrate, U.S.P., CrystVIII	lb.	—	— 1.15
Granular, U.S.P. IX	lb.	—	— 1.30
Cyanide 96-98, see Heavy Chemicals			
Glycerophosphate, crystals	lb.	2.15	— 2.20
Hypophosphite, U.S.P.	lb.	1.00	— 1.05
Iodide, bulk	lb.	—	— 4.05
Peroxide	lb.	.35	— .40
Phosphate, U.S.P., gran.	lb.	—	— .13
Recryst.	lb.	.17	— .18
Dried	lb.	.40	— .45
Salicylate, U.S.P.	lb.	.55	— .60
Sulph. (Glauber's Salt)	lb.	.01¾	—.01½
Strontium Brom. Cryst, blk.	lb.	.50	— .51
Carbonate, pure	lb.	.40	— .45
Iodide, bulk	lb.	—	— 3.70
Salicylate, U.S.P.	lb.	—	— .60
Strychnine Alkd., cryst.	oz.	—	— 1.80
Acetate	oz.	—	— 1.80
Nitrate	oz.	—	— 1.80
Sulphate, crystals, bulk	oz.	—	— 1.40
Sugar of Milk, Powdered	lb.	.34	— .36
Cartons, 1 lb.	lb.	—	— .40
Sulphonal, 100-oz. lots		1.15	— 1.20
Sulphonethylmethane, U.S.P.	lb.	16.00	—16.75
Sulphonmethane, U.S.P.	lb.	13.00	—14.00
Sulphur, roll, bbls.	100 lbs.	2.95	— 3.15
Flour, 100 p.c. pure	100 lbs.	3.10	— 3.40
Flowers, 100 p.c. pure	100 lbs.	3.30	— 3.60
Precip., U.S.P.	lb.	—	— .17
Lac Sulphur	lb.	—	— .12
Tartar Emetic, tech.	lb.	.67	— .67½
U.S.P.	lb.	.73	— .73½
Terpin Hydrate	lb.	.84	— .85
Theobromine Alkaloid	lb.	—	—12.00
Thymol, crystals, U.S.P.	lb.	—	— 7.00
Iodide, U.S.P., bulk	lb.	11.90	—12.00
Tin, bichloride, see Heavy Chemicals			
Oxide, 500 lb. bbls.	lb.	—	— .60
Toluol. See Coal Tar Crudes.			
Turpentine, Venice, True	lb.	4.50	— 4.75
Artificial	lb.	.14	— .15
Spirits, see Naval Stores.			
Vanillin, see Aromatic Chemicals			
Veronal (See Barbital)			
Witch Hazel, Ext., dble dist., bbl.	gal.	—	— 1.15
Zinc Carbonate	lb.	—	— .16
Chloride, U.S.P.	lb.	.45	— .50
Iodide, bulk	lb.	—	— 4.15
Metallic, C. P.	lb.	.45	— .75
Oxide, U.S.P., bbls.	lb.	.22	— .23
Stearate	lb.	.38	— .42

*Nominal

Acids

Acetic, 28 p.c., See Heavy Chemicals			
Glacial, See Heavy Chemicals			
Acetyl-salicylic	lb.	.80	— .95
Benzoic, from gum	lb.	—	— —
U.S.P., ex toluol	lb.	.85	— .90
Boric, cryst., bbls.		.13¾	— .14
Powdered, bbls.	lb.	.13¾	— .14
Butyric, Tech., 60 p.c.	lb.	1.45	— 1.55
Camphoric	lb.	6.00	— 6.20
*Carbolic cryst., U.S.P. drs.	lb.	.14	— .15
1-lb. bottle	lb.	—	— .22
5-lb. bottle	lb.	—	— .20
50 to 100-lb. tins	lb.	.16	— .16½
Liquid, U.S.P.	lb.	—	— .19
Crude, 25%	gal.	.24	— .31
Chromic, U.S.P.	lb.	1.25	— 1.50
Chrysophanic	lb.	—	— 5.00
Citric, crystals, bbls.	lb.	—	— .93
Powdered	lb.	—	— .94
Second hands	lb.	.95	— .96
Cresylic, 95-100 p.c.	gal.	.75	— .85
Formic, 75 p.c., tech	lb.	.36½	— .38
Gallic, U.S.P., bulk	lb.	1.40	— 1.45
Glyceronhosphoric, 25 p.c.	lb.	—	— 2.50
Hydriodic, sp. g. 1.150	oz.	—	— .19
Hydrofluoric, see Heavy Chemicals			
Hydrosilicofluoric, 10 p.c tech.	lb.	.40	— .45
20 p.c. tech	lb.	.50	— .60
Hypophosphorous, 50 p.c.	lb.	2.40	— 2.50
U.S.P., 10 p.c.	lb.	.60	— .65
Lactic, U.S.P., VIII	lb.	—	— 2.20
U.S.P., IX	lb.	—	— 2.40
Molybdic, C.P.	lb.	—	— 8.50
Muriatic, see Heavy Chemicals			
Nitric, see Heavy Chemicals			
Nitro Muriatic	lb.	.20	— .23
Oleic, purified	lb.	.23	— .28
Oxalic, cryst., bbls.	lb.	.23	— .24
Picric, kegs, see Intermediates			
Phosphoric, 85-88p.c.syr.U.S.P.	lb.	.32	— .33
50 p.c. tech.	lb.	.21½	— .23½
Pyrogallic, resublimed	lb.	2.30	— 2.35
Crystals, bottles	lb.	2.00	— 2.10
Pyrolignenus, purified	lb.	.08	— .10
Technical	gal.	.12	— .12½
Salicylic, Bulk, U.S.P.	lb.	—	— .50
Sulphuric, C.P.	lb.	.08	— .09
Sulphurous	lb.	.06	— .06½
Tannic, technical	lb.	.50	— .60
U.S.P., bulk	lb.	—	— 1.30
Tartaric Crystals, U.S.P.	lb.	.74	— .74½
Powdered, U.S.P.	lb.	.74½	— .75
Trichloracetic, U.S.P.	lb.	4.40	— 4.50

Crude Drugs

MISCELLANEOUS

Agar, Agar, No. 1	lb.	—	— .85
No. 2	lb.	—	— .80
No. 3	lb.	—	— .75
Almonds, bitter	lb.	.45	— .50
Sweet	lb.	.45	— .50
Meal	lb.	.47	— .52
Ambergris, black	oz.	—	—10.00
Grey	lb.	—	—23.00
Areca Nuts	lb.	—	— .30
Powdered	lb.	.33	— .35
Balm of Gilead Buds	lb.	3.50	— 3.75
Burgundy Pitch, Dom.	lb.	.09	— .09½
Cantharides, Chinese	lb.	1.15	— 1.20
Powdered	lb.	1.25	— 1.30
Russian, whole	lb.	—	— 3.75
Powdered	lb.	—	— 4.00
Charcoal Willow, powdered	lb.	.05½	— .07
Wood, powdered	lb.	.04	— .05
Civet	oz.	2.50	— 2.75
Colocynth, Apples, Trieste	lb.	.30	— .35
Pulp, U.S.P.	lb.	.35	— .36
Spanish Apples	lb.	.45	— .55

*Nominal

Cuttlefish Bones, Trieste	lb.	.60	— .62
Jewelers, large	lb.	1.70	— 1.75
Small	lb.	1.55	— 1.60
French	lb.	.55	— .60
Dragon's Blood, Mass.	lb.	.35	— .40
Reeds	lb.	2.50	— 2.75
Ergot, Russian	lb.	—	— 4.00
Spanish	lb.	—	— 4.00
Grains of Paradise	lb.	—	— .60
Hops, N. Y., 1918, prime	lb.	.65	— .80
Pacific Coast, 1918, prime	lb.	.58	— .67
Isinglass, American (see Agar Agar)			
Russian	lb.	—	—10.00
Kola Nuts, West Indies	lb.	.19	— .21
Honey, Calif.	lb.	.20	— .22
Manna, large flake	lb.	.75	— .80
Small flake	lb.	.57	— .60
Moss, Iceland	lb.	.21	— .23
Irish	lb.	.11	— .15
Musk, pods, Cab.	oz.	—	— —
Tonquin	oz.	25.00	—26.00
Grain, Cab	lb.	23.00	—25.00
Tonquin	lb.	41.00	—43.00
*Synthetic	lb.	—	—30.00
Nux Vomica, whole	lb.	.07	— .07½
Powdered	lb.	.12	— .13
Poppy Heads	lb.	—	— 1.25
Sandalwood	lb.	.50	— .55
Ground	lb.	.55	— .60
Scammony, resin	lb.	2.95	— 3.20
Powdered	lb.	3.05	— 3.30
Spermaceti, blocks	lb.	.30	— .31
Storax, liquid cases	lb.	1.50	— 1.60
Tamarinds, bbls.	lb.	.12½	— .13
Kegs	per keg	—	— 6.25

BALSAMS

Copaiba, Para	lb.	.45	— .50
South American	lb.	.55	— .60
Fir, Canada	lb.	—	— 9.00
Oregon	gal.	1.55	— 1.70
Peru	lb.	3.40	— 3.50
Tolu	lb.	1.50	— 1.60

BARKS

Angostura	lb.	.28	— .30
Basswood Bark, pressed	lb.	.17	— .21
Bayberry	lb.	.22	— .28
Blackhaw, of root	lb.	.50	— .60
of Tree	lb.	.35	— .40
Buckthorn	lb.	—	— .60
Calisaya	lb.	.95	— 1.00
Cascara Sagrada	lb.	.17	— .18
Cascarilla, quills	lb.	.24	— .25
Siftings	lb.	.12	— .13
Chestnut	lb.	.10	— .10½
Cinchona, red quills	lb.	.80	— 1.00
Broken	lb.	.60	— .70
*Yellow "quills"	lb.	—	— —
*Broken	lb.	—	— —
*Loxa, pale, bs.	lb.	—	— —
*Powdered, boxes	lb.	—	— —
*Maracaibo, yellow, powd.	lb.	—	— —
Condurango	lb.	.10	— .10½
Cotton Root	lb.	.20	— .22
Cramp (true)	lb.	.42	— .45
Cramp (so-called)	lb.	.11	— .12
Dogwood, Jamaica	lb.	.09½	— .10
Elm, grinding	lb.	.21	— .25
Select bdls.	lb.	.40	— .42
Hemlock	lb.	.07	— .08
Lemon Peel	lb.	.10	— .10½
Mezereon	lb.	.22	— .23
Oak, red	lb.	.08	— .09
White	lb.	.08	— .09
Orange Peel, bitter	lb.	—	— .12
Malaga, Sweet	lb.	.12	— .13
Trieste, sweet	lb.	.10	— .12
Prickly Ash, Southern	lb.	.18	— .20
Northern	lb.	.18	— .20
Pomegranate of Root	lb.	.26	— .28
of Fruit	lb.	.25	— .26
Sassafras, ordinary	lb.	.35	— .45
Select	lb.	.45	— .55
Simaruba	lb.	.60	— .65
Soap, whole	lb.	.15	— .17
Cut	lb.	.25	— .26
Crushed	lb.	.22	— .23
Wahoo, of Root	lb.	.60	— .70
of Tree	lb.	.30	— .35
Willow, Black	lb.	.06	— .07
White	lb.	.16	— .17
White Pine Rossed	lb.	.07	— .08
White Poplar	lb.	.07	— .08
Wild Cherry	lb.	.15	— .20
Witch Hazel	lb.	.08	— .09

*Nominal

BUTYRIC ETHER, ABSOLUTE
(ETHYL BUTYRATE)

Amyl Butyrate **Amyl Valerate**
Butyric Acid (All Grades) **Amyl Acetate** (All Grades)

Concentrated Foam
(Saponin, Pure)

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The Largest Makers of Butyric Ether in the World

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Manufacturing Chemists and Importers

MAIN OFFICE and WORKS, PASSAIC, N. J.

New York Office, 100 William Street

All Sulphonated Castor Oils
Finishing Products, for Cotton, Wool and Silk
Bensapol, for Scouring Wool
Bleaching Oil, Special Product for Bleacheries
Boil-Off Oil, for Degumming Silk
Monopole Oil U. S. Pat. 861397—Serial 367303
Mordants, Chrome Colors For Fabric Printing
Textile Gum for PRINTING
Hydrosulphites, (for all Purposes) Stripping, Discharge Printing, Vat Colors and Indigo Discharge
Alizarine Yellows
Fast Green Paste
Chrome Black
Gums—Arabic, Karaya, Tragacanth

Western Representatives
United Indigo & Chemical Company, Ltd.
218 West Kinzie Street, Chicago, Ill.

Carbon Tetrachloride
Magnesium Carbonate
Crude Carbolic Acid 25/30%
Cresylic Acid 97/99, Pale Straw, English Make
Cascara Sagrada Bark (Old)
Calcined Magnesia, U.S.P.
Salamoniac, Lump, English

Drug & Chemical Department

NATIONAL ANILINE & CHEMICAL COMPANY
Incorporated

Main Sales Office
21 Burling Slip, New York

Crude Drugs—Roots, Gums, Herbs, Flowers, and Seeds

BEANS

Calabar	lb.	.45	— .50
St. Ignatius	lb.	—	— .35
St. John's Bread	lb.	.09	— .12
Tonka, Angostura	lb.	—	— 1.75
Para	lb.	1.15	— 1.25
Surinam	lb.	1.00	— 1.10
Vanilla, Mexican, whole	lb.	4.50	— 5.50
Cuts	lb.	3.25	— 3.50
Bourbon	lb.	3.00	— 3.25
South American	lb.	3.25	— 3.75
Tahiti, Yellow Label	lb.	2.75	— 3.00
Green Label	lb.	—	— 2.75

BERRIES

Cubeb, ordinary	lb.	1.30	— 1.35
XX	lb.	1.40	— 1.45
Powdered	lb.	1.35	— 1.40
Fish	lb.	.60	— .65
Horse, Nettle, dry	lb.	.40	— .45
Juniper	lb.	.08½	— .09
Laurel	lb.	.08	— .10
*Poke	lb.	.14	— .15
Prickly Ash	lb.	.15	— .16
Saw Palmetto	lb.	.15	— .16
Sloe	lb.	.25	— .30

FLOWERS

Arnica		—	— .45
Powdered	lb.	—	— .80
Borage	lb.	.60	— .70
Calendula Petals	lb.	—	— 2.75
Chamomile, German	lb.	—	— —
Hungarian type	lb.	.48	— .50
Roman	lb.	.35	— .40
Spanish	lb.	—	— .45
Clover Tops	lb.	.11	— .12
Dogwood	lb.	.17	— .18
Elder	lb.	.50	— .55
Insect, open	lb.	—	— .50
Closed	lb.	.55	— .60
*Powd. Flowers and stems	lb.	—	— .45
Powd. Flowers	lb.	.65	— .70
*Kousso	lb.	—	— .60
Lavender, ordinary	lb.	.18	— .20
Select	lb.	.26	— .28
Linden, with leaves	lb.	.35	— .37
Without Leaves	lb.	.65	— .70
Malva, blue	lb.	1.00	— 1.10
Black	lb.	.55	— .60
Mullein	lb.	1.68	— 1.70
Orange	lb.	1.95	— 2.00
Poppy, red	lb.	.95	— 1.10
Rosemary	lb.	.69	— .70
Saffron, American	lb.	.32	— .34
Valencia	lb.	14.00	—15.00
Tilia (see Linden)			

GUMS

Aloes, Barbados	lb.	.98	— 1.05
Cape	lb.	.13	— .15
Curacao, cases	lb.	.09	— .09½
Socotrine, whole	lb.	.85	— .90
Powdered	lb.	—	— 1.00
Ammoniac, tears	lb.	—	— —
Powdered	lb.	—	— —
Arabic, firsts	lb.	.35	— .40
*Seconds	lb.	—	— —
Sorts Amber	lb.	.16	— .16½
Powdered	lb.	.27	— .30
Asafoetida, whole, U.S.P.	lb.	3.60	— 3.75
Powdered	lb.	4.50	— 4.75
Benzoin, Siam	lb.	.80	— 1.00
Sumatra	lb.	.36	— .38
Camphor, ref. See Pg. 32 Col. 2			
Catechu	lb.	.11	— .15
Chicle, Mexican	lb.	1.40	— 1.50
Euphorbium	lb.	.28	— .30
Powdered	lb.	—	— .50
Galbanum	lb.	1.38	— 1.45
Gambier	lb.	.11	— .12
Gamboge	lb.	1.80	— 1.85
Guaiac	lb.	.70	— 1.00
Hemlock	lb.	.83	— .90
Kino	lb.	.49	— .59
Mastic	lb.	1.10	— 1.15
Myrrh, Select	lb.	.85	— .90
Sorts	lb.	.70	— .78
Siftings	lb.	—	— —
Olibanum, siftings	lb.	.16	— .19
Tears	lb.	.18	— .30
Opium, See Pg. 33, Col. 3			
Sandarac	lb.	.45	— .48
*Senegal, picked	lb.	—	— —
Sorts	lb.	—	— —
Spruce	lb.	1.00	— 1.50
Storax, Art. cases	lb.	1.60	— 1.65
*Thus, per bbl. 280 lbs.		—	—28.00
Tragacanth, Aleppo first	lb.	—	— 4.25
Seconds	lb.	3.50	— 3.75
*Thirds	lb.	—	— 2.50

*Nominal.

LEAVES AND HERBS

*Aconite	lb.	.60	— .70
Balmony	lb.	.11	— .13
Bay, true	lb.	—	— —
Belladonna	lb.	—	— .30
Boneset, leaves and tops	lb.	.16	— .18
Buchu, short	lb.	2.10	— 2.15
Long	lb.	2.25	— 2.50
Cannabis, true, imported	lb.	—	— —
American	lb.	.20	— .55
Catnip	lb.	.15	— .16
Chestnut	lb.	.06	— .07
Chiretta	lb.	.35	— .38
*Coca, Huanuco	lb.	—	— —
Truxillo	lb.	.70	— .75
Coltsfoot	lb.	.18	— .19
Conium	lb.	.20	— .25
Corn Silk	lb.	.12	— .14
Damiana	lb.	—	— .14
Deer Tongue	lb.	.12	— .14
Digitalis, Domestic	lb.	.23	— .25
Imported	lb.	.30	— .32
Eucalyptus	lb.	.10	— .11
Euphorbia Pilulifera	lb.	.15	— .16
Grindelia Robusta	lb.	.14	— .15
Henbane, German	lb.	—	— —
*Russian	lb.	1.20	— 1.25
Domestic	lb.	.45	— .50
Henna	lb.	.65	— .68
Horehound	lb.	—	— .16
*Jaborandi	lb.	.45	— .50
Laurel	lb.	.08½	— .09
Life Everlasting	lb.	.10	— .11
Liverwort	lb.	.21	— .25
Lobelia	lb.	.22	— .25
Matico	lb.	.25	— .26
*Marjoram, African	lb.	.50	— .52
French	lb.	.50	— .51
Motherwort herb	lb.	.16	— .17
Patchouli	lb.	.76	— .83
Pennyroyal	lb.	.12	— .16
Peppermint, American	lb.	.26	— .29
Pichi	lb.	.11	— .12
Prince's Pine	lb.	.21	— .22
Plantain	lb.	.12	— .14
Pulsatilla	lb.	2.50	— 3.00
Queen of the Meadow	lb.	.10	— .11
Rose, red	lb.	1.10	— 1.15
Rosemary	lb.	.12	— .14
Rue	lb.	—	— .65
Sage, Austrian, stemless	lb.	—	— —
*Grinding	lb.	—	— —
Greek, stemless	lb.	.11	— .11½
Spanish	lb.	.07	— .07½
Savory	lb.	.20	— .20½
Senna, Alexandria, whole	lb.	.75	— .80
Half Leaf	lb.	.60	— .63
Siftings	lb.	.24	— .25
Powdered	lb.	.40	— .42
Tinnevelly	lb.	.14	— .20
Pods	lb.	.10	— .12
Skullcap, Western	lb.	.40	— .45
Spearmint American	lb.	.20	— .22
Squaw Vine	lb.	.27	— .30
Stramonium	lb.	.30	— .32
Tansy	lb.	—	— .15
Thyme, Spanish	lb.	.11	— .11½
French	lb.	.14	— .14½
Uva Ursi	lb.	.09	— .10
Witch Hazel	lb.	.08	— .10
Wormwood imported	lb.	.14	— .15
Yerba Santa	lb.	.12	— .13

ROOTS

Aconite, U.S.P.	lb.	.65	— .75
German	lb.	—	— —
Alkanet	lb.	2.25	— 2.50
Althea, cut	lb.	.70	— .72
Whole	lb.	.35	— .40
Angelica American	lb.	.35	— .37
Imported	lb.	.59	— .69
Arnica	lb.	.85	— 1.00
Arrowroot, American	lb.	—	— .10
Bermuda	lb.	—	— .60
St. Vincent	lb.	.20	— .21
Bamboo Brier	lb.	.10	— .12
Bearsfoot	lb.	.09	— .10
Belladonna	lb.	.50	— .65
Berberis, Aquifolium	lb.	.14	— .17
Beth	lb.	.18	— .20
Blood	lb.	.35	— .37
Blueflag	lb.	.32	— .34
Bryonia	lb.	.24	— .26
Burdock, Imported	lb.	.18	— .19
American	lb.	.16	— .17
Calamus, bleached	lb.	.60	— .65
Unbleached, natural	lb.	.18	— .19
Cohosh, black	lb.	.09	— .10
Blue	lb.	.14	— .15

*Nominal.

Colchicum	lb.	1.60	— 1.65
Colombo, whole	lb.	.24	— .29
Comfrey	lb.	.25	— .26
Culver's	lb.	.23	— .24
Cranesbill, see Geranium.			
Dandelion, Euglish	lb.	.24	— .26
American	lb.	.21	— .22
Doggrass Dom.	lb.	.25	— .28
Cut Bermuda	lb.	.29	— .30
Echinacea	lb.	.38	— .42
Elecampane	lb.	.13	— .14
Galangal	lb.	.28	— .30
Gelsemium	lb.	.13	— .14
Gentian	lb.	.14	— .15
Geranium	lb.	—	— .14
Ginger, Jamaica, unbleached	lb.	.22	— .23
Bleached	lb.	.26	— .27
*Ginseng, Cultivated	lb.	3.00	— 9.00
Wild, Eastern	lb.	5.00	—10.00
Northwestern	lb.	5.00	—22.00
Southern	lb.	—	— —
Golden Seal	lb.	5.75	— 6.00
Powdered	lb.	6.25	— 6.75
*Hellebore, Black, Imported	lb.	1.40	— 1.50
White, Domestic	lb.	.20	— .21
Powdered	lb.	.25	— .26
*Imported	lb.	—	— —
Ipecac, Cartagena	lb.	2.80	— 3.00
Powdered	lb.	—	— 3.25
Rio, whole	lb.	2.80	— 3.00
Powdered	lb.	—	— 3.25
Jalap, whole	lb.	.70	— .80
Kava Kava	lb.	.18	— .19
Lady Slipper	lb.	.85	— .90
Licorice, *Russian, cut	lb.	.80	— .90
Spanish natural bales	lb.	.17	— .19
Selected	lb.	.27	— .28
Powdered	lb.	.24	— .25
*Lovage, American	lb.	.73	— .75
Manaca	lb.	.27	— .29
Mandrake	lb.	.22	— .23
Musk, Russian	lb.	1.75	— 2.00
Oriss, Florentine bold	lb.	.22	— .23
Verona	lb.	.21	— .22
Pareira Brava	lb.	.30	— .32
Pellitory	lb.	.29	— .31
Pink, true	lb.	1.00	— 1.50
Pleurisy	lb.	.16	— .28
Poke	lb.	.13	— .14
Rhatany	lb.	.12	— .14
*Rhubarb Shensi	lb.	—	— —
Chips	lb.	—	— —
Cuts	lb.	—	— —
High Dried	lb.	1.65	— 1.90
Sarsaparilla, Honduras	lb.	.65	— .66
American	lb.	.38	— .43
Mexican	lb.	.45	— .50
Senega, Northern	lb.	1.65	— 1.70
Southern	lb.	1.65	— 1.70
Serpentaria	lb.	.75	— .80
Skunk Cabbage	lb.	.20	— .22
Snake, Canada natural	lb.	.38	— .40
Stripped	lb.	.50	— .55
Spikenard	lb.	.30	— .32
Squill, white	lb.	.12	— .13
Stillingia	lb.	.13	— .14
Stone	lb.	.12	— .14
Turmeric Madras	lb.	.12	— .12½
Aleppy	lb.	.09	— .09¼
China	lb.	.07	— .08
Unicorn false (Helonias)	lb.	.55	— .60
True (Aletris)	lb.	—	— .60
Valerian, Belgian	lb.	.70	— .75
*English	lb.	—	— —
*German	lb.	—	— —
*Japanese	lb.	—	— 1.25
Yellow Dock	lb.	.13	— .15
*Yellow Parilla	lb.	—	— .20

SEEDS

Anise, Levant	lb.	.20½	— .21
Star	lb.	.18½	— .19
Spanish	lb.	.20	— .20½
Canary, *Spanish	lb.	—	— —
Morocco	lb.	.10	— .10½
South American	lb.	.09½	— .10
Caraway, African	lb.	.14	— .14½
Dutch	lb.	.12½	— .13
Domestic	lb.	.68	— .69
Cardamom, bleached	lb.	1.50	— 2.00
Celery	lb.	.39	— .40
Colchicum	lb.	2.00	— 2.10
Conium	lb.	.39	— .40
Coriander, Bombay	lb.	.05¼	— .05½
Morocco, Unbleached	lb.	.06	— .06½
Bleached	lb.	.09½	— .10

*Nominal.

Chemicals for Spot Delivery

The cessation of war production has left us with large quantities of the following chemicals. They are now at the disposal of manufacturers.

Crude Sodium Acetate

70%.....Sodium Acetate
19%.....Muriate of Potash

This material is fused dried. Samples and complete analysis will be furnished on request.

Crude Calcium Acetate

25%.....Calcium Acetate
25%.....Calcium Propionate
7%.....Calcium Butyrate
13%.....Sodium Chloride
7%.....Potassium Chloride

TNT Oils

These oils are a mixture of various nitro toluols of a nitrogen content of 16%, and contain from 25% to 40% TNT.

Sulphur Chloride

Packed in drums.

Complete information and samples of any of these materials will be furnished on request.

HERCULES POWDER CO.
Chemical Sales Division
WILMINGTON, DELAWARE

BOWRING & CO.

17 Battery Place NEW YORK

Cable Address, "Bowring"
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Exporters and Importers

LICORICE
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SENNA LEAVES
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Our facilities enable us to render prompt and efficient service at minimum charges

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and drop us a line when you are in need of

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or
Antipyrine

We have a large supply of these products of standard quality and believe our quotation will earn us your order.

Our pharmaceuticals embody both quality and economy, and are backed up by our reputation for reliability maintained since 1849.

Write for Our Chemical Price List

E. FOUGERA & CO., Inc.
Established 1849
90-92 Beekman Street
New York, N. Y.

Essential Oils, Oleoresins, Aromatic and Heavy Chemicals

*Cumin, Levant	lb.	—	—
*Malta	lb.	—	—
Morocco	lb.	.11½	.12
Dill	lb.	.15	.15½
Fennel, French	**lb.**	**.14**	**.14½**
***German, small**	**lb.**	**—**	**—**
***Roumanian, small**	**lb.**	**—**	**—**
Flax, whole	per bbl.	20.00	—22.00
Ground	lb.	.12	.13
Foenugreek	lb.	.04½	.05
Hemp, Manchurian	lb.	.09	.09½
Chilian	lb.	.09	.09½
Job's Tears, white	**lb.**	**.05½**	**.06**
Larkspur	lb.	.29	.30
Lobelia	lb.	.60	.65
Mustard, Bari, Brown	**lb.**	**—**	**—**
***Dutch**	**lb.**	**—**	**—**
Bombay, Brown	lb.	.15	.15½
California brown	lb.	.22	.23
Chinese, Yellow	lb.	.09	.09½
English, yellow	lb.	.25	.26
Parsley	lb.	.28	.29
Poppy, Dutch	lb.	.45	.47
Russian blue	lb.	—	—
Indian	lb.	.25	.25½
Quince	lb.	—	.95
Rape, English	**lb.**	**—**	**—**
Japanese small	lb.	.12	.12½
Domestic	**lb.**	**.08½**	**.09**
Sabadilla	lb.	.15	.15½
Stramonium	lb.	.25	.26
Strophanthus, Hispidus	**lb.**	**1.55**	**1.60**
Kombe	**lb.**	**1.75**	**2.00**
Sunflower, domestic	lb.	.22	.22½
South American	lb.	.10½	.11
Worm, American	lb.	—	.35
Levant	lb.	1.15	1.25

SPICES

Capsicum, African pods	lb.	.13	.14
Bombay	**lb.**	**.15**	**.16**
Japan Caps	**lb.**	**—**	**.16**
Cassia Buds	lb.	.22	.24
China, Selected, mats	lb.	.19	.20
Saigon, assortment	lb.	.50	.51
Chillies, Japan	lb.	.21	.22
Mombasa	lb.	.14	.14½
Cinnamon, Ceylon	lb.	.33	.43
Cloves, Zanzibar	lb.	.40	.41
Amboynas	lb.	.44	.45
Penang	**lb.**	**.70**	**.80**
Ginger, African	lb.	.14	.14½
Jamaica, white good	lb.	.22	.23
Japan	lb.	.15	.15½
Mace, Banda, No. 1	lb.	.49	.50
Banda, No. 2	**lb.**	**.45**	**.46**
Batavia, No. 2	lb.	.42½	.43
Nutmegs, 110s	lb.	.27	.28
Pepper, Black, Sing	lb.	.20	.21
White	lb.	.33¼	.33½
Pimento, Select	lb.	.09	.09½

WAXES

Bayberry	lb.	.52	.54
Bees, light, crude	**lb.**	**.43**	**.44**
Light, refined	lb.	.48	.49
Dark	lb.	.47	.48
Candelila	**lb.**	**.31**	**.32**
Carnauba, Flor.	**lb.**	**—**	**—**
No. 1, North Country	lb.	.90	.91
No. 2, North Country	lb.	.70	.75
No. 3, Fatty Gray	lb.	.56	.58
Chalky	lb.	.50	.52
Ceresin, Yellow	**lb.**	**.16**	**.18**
White	lb.	.18	.23
Japan	lb.	.19	.19½
Montan, crude	**lb.**	**.35**	**.36**
***Bleached**	**lb.**	**—**	**—**
Ozokerite, crude, brown	**lb.**	**.35**	**.36**
***Green**	**lb.**	**—**	**—**
***Refined, white**	**lb.**	**—**	**—**
***Domestic**	**lb.**	**—**	**—**
Refined, yellow	**lb.**	**—**	**—**
Paraffin, ref'd 128-139 deg.m.p.	lb.	.09	.09¼
***Foreign, 130-132 deg. m.p.**	**lb.**	**.10**	**.10½**

Stearic Acid, see Vegetable Oils, pg. 31

*Nominal

Essential Oils

Almond, bitter,	lb.	9.25	— 9.50
Bitter, U.S.P.	lb.	9.50	— 9.75
Artificial, U.S.P.	lb.	1.50	— 2.00
Sweet	**lb.**	**1.00**	**— 1.10**
Peach Kernel	lb.	.40	— .45
Amber, crude	lb.	1.75	— 2.00
Rectified	lb.	2.00	— 2.25
Anise, U.S.P.	lb.	1.55	— 1.70
Bay	lb.	—	— 4.00
Bergamot	lb.	4.70	— 4.75
Synthetic	**lb.**	**2.50**	**— 3.00**
*Bois de Rose	lb.	—	— 9.00
Cade	lb.	1.00	— 1.10
Cajuput, U.S.P.	lb.	1.00	— 1.25
Camphor, Sassafrassy	lb.	.12	— .14
Japanese, white	lb.	.22	— .23
Caraway, Rectified	lb.	6.50	— 6.75
Cassia, Technical	lb.	2.35	— 2.40
Lead, Free	lb.	2.45	— 2.50
Redistilled, U.S.P.	lb.	2.90	— 2.95
Cedar, Leaf	lb.	—	— 2.25
Cedar Wood, light	lb.	.25	— .26
Cinnamon, Ceylon, heavy	lb.	—	—28.00
Citronella, Ceylon	lb.	—	— .47
Java	lb.	—	— .90
Cloves, can	lb.	2.85	— 3.00
Bottles	lb.	3.00	— 3.05
Copaiba, U.S.P.	lb.	.85	— .90
*Coriander, U.S.P.	lb.	—	—65.00
Cubebs, U.S.P.	lb.	8.00	— 8.50
Cumin	lb.	8.50	— 9.00
Erigeron	lb.	—	— 8.00
Eucalyptus, Australian, U.S.P.	lb.	.75	— .85
Fennel, sweet, U.S.P.	lb.	2.75	— 3.00
Geranium, Rose Algerian	lb.	9.50	—10.00
Bourbon (Reunion)	lb.	9.00	— 9.25
Turkish	lb.	5.00	— 5.25
Ginger	lb.	7.00	— 7.50
Gingergrass	lb.	—	— 3.25
Hemlock	lb.	—	— .90
Juniper Berries, rect.	lb.	7.50	— 7.75
Twice rect.	lb.	7.75	— 8.50
Wood	lb.	1.50	— 2.00
Lavender Flowers, U.S.P.	lb.	9.25	— 9.50
Garden	lb.	.75	— 1.00
Spike	lb.	1.20	— 1.75
Lemon, U.S.P.	lb.	1.10	— 1.15
Lemongrass, Native	lb.	2.00	— 2.10
Limes, Expressed	**lb.**	**3.75**	**— 4.00**
Distilled	**lb.**	**1.10**	**— 1.25**
Linaloe	lb.	7.00	— 7.25
Mace, distilled	lb.	1.65	— 1.70
Mirbane, ref., see Aromatic Chemicals			
Mustard, natural	lb.	25.00	—30.00
Artificial	lb.	9.00	—11.00
Neroli, bigarade	**lb.**	**95.00**	**—105.00**
Petale	lb.	140.00	—150.00
Artificial	**lb.**	**15.00**	**—30.00**
Nutmeg, U.S.P.	**lb.**	**1.60**	**— 1.75**
Orange, bitter	lb.	2.25	— 2.30
Sweet, West Indian	lb.	2.25	— 2.30
Italian	lb.	3.00	— 3.10
Origanum, Imitation	**lb.**	**.42**	**— .45**
Orris Concrete	**oz.**	**5.00**	**— 5.25**
Patchouli	lb.	19.00	—20.00
Pennyroyal, domestic	lb.	—	— —
Imported	lb.	1.50	— 1.60
Peppermint, tins	lb.	7.65	— 8.00
Redistilled, U.S.P.	lb.	8.00	— 8.25
Petit Grain, So. America	lb.	—	— 4.00
French	lb.	9.00	— 9.50
Pinus Sylvestris	**lb.**	**2.25**	**— 2.50**
Pumilio	lb.	5.35	— 5.50
Rose, French	**oz.**	**15.00**	**—17.00**
Bulgarian	oz.	17.50	—20.00
Artificial	**oz.**	**2.50**	**— 3.50**
Rosemary	lb.	1.10	— 1.30
Sandalwood, East India	lb.	10.75	—11.00
West Indies	**lb.**	**6.00**	**— 6.50**
Sassafras, natural	lb.	2.00	— 2.10
Artificial	lb.	.65	— .70
Savin	lb.	6.00	— 6.25
Spearmint	lb.	—	—10.75
Spruce	lb.	—	— .90
Tansy, Amer.	lb.	4.00	— 4.25
Thyme, red, French, U.S.P.	**lb.**	**1.85**	**— 2.00**
White, French	**lb.**	**2.00**	**— 2.25**
Wintergreen, sweet birch	lb.	6.00	— 7.00
Genuine Gaultheria	lb.	10.50	—11.00
Synthetic, U.S.P., bulk	lb.	—	— .60
Wormseed, Baltimore	lb.	—	— 4.75
Wormwood, Dom.	lb.	—	— 7.25
Ylang Ylang, Bourbon	lb.	15.00	—16.00
Manila	lb.	25.00	—45.00
Artificial	lb.	—	—10.00

OLEORESINS

Aspidium (Malefern)	**lb.**	**10.00**	**—11.00**
Capsicum, 1-lb. bottles	lb.	—	— 4.00
Cubeb	lb.	7.75	— 8.00
Ginger	lb.	3.25	— 3.50
Malefern	lb.	—	—10.00
Mullein (so-called)	**lb.**	**5.00**	**— 5.25**
***Orris, domestic**	**lb.**	**—**	**—20.00**
Imported	lb.	20.00	—21.00
***Parsley Fruit (Petroselinum)**	**lb.**	**7.50**	**— 8.00**
Pepper, black	**lb.**	**—**	**— 7.00**

Aromatic Chemicals

Acetophenone	lb.	8.00	—10.00
Amyl Salicylate	lb.	2.25	— 2.50
Anethol	lb.	2.50	— 2.75
Anisic Aldehyde, C.P.	lb.	—	— 7.50
Benzaldehyde, F.F.C.	lb.	2.00	— 2.50
Benzyl Acetate	lb.	2.25	— 2.50
Imported	lb.	—	— —
Benzyl Alcohol	lb.	2.50	— 2.75
Benzyl Benzoate	lb.	3.25	— 3.50
Imported	lb.	—	— —
Borneol	lb.	4.00	— 4.25
Bromostyrol	lb.	—	—12.00
Cinnamic Acid	lb.	6.00	— 6.50
Cinnamic Alcohol	lb.	40.00	—45.00
Cinnamic Aldehyde	lb.	—	— 5.50
Citral	lb.	4.00	— 4.25
Citronellol	lb.	16.00	—18.00
Imported	lb.	—	—30.00
Coumarin	lb.	6.75	— 7.00
Ethyl Cinnamate	lb.	8.00	—10.00
Eucalyptol	lb.	1.25	— 1.30
Eugenol	lb.	3.75	— 4.00
Geraniol, from citronella	lb.	3.50	— 6.00
Geranyl Acetate	lb.	—	— 7.25
Geranyl	lb.	—	— —
Heliotropin	lb.	3.75	— 4.00
Indol, C. P.	oz.	—	—20.00
Imported	oz.	—	—30.00
Iso-Eugenol	lb.	8.50	— 8.75
Linalol	lb.	8.00	— 9.00
Linalol Acetate	lb.	9.00	—13.00
Linalol Benzoate	lb.	—	— —
Menthol	lb.	9.75	—10.00
Methyl Anthranilate	lb.	15.00	—17.00
Methyl Cinnamate	lb.	—	— 7.25
Methyl Paracresol	lb.	—	—16.00
Methyl Salicylate	lb.	—	— .60
Mirbane, rect. drums	lb.	.13½	— .14
Musk Ambrette	lb.	92.00	—100.00
Musk Ketone	lb.	—	— —
Musk Xylene	lb.	13.00	—15.00
Phenylacetaldehyde	lb.	35.00	—40.00
Phenylethylic Alcohol	lb.	35.00	—42.00
Phenylacetic Acid	lb.	14.00	—16.00
Rhodinol	lb.	20.00	—22.00
Imported	lb.	—	—30.00
Safrol	lb.	.75	— .80
Terpineol, C. P.	lb.	—	— 1.25
Imported	lb.	—	— 1.70
Thymol	lb.	—	— 7.00
Vanillin	oz.	.75	— .80
Violet, artificial	**lb.**	**12.00**	**—18.00**

Heavy Chemicals

Acetic acid, 28 p.c., bbls., Incl.	100 lbs.	—	— 3.75
56 p.c., bbls.	100 lbs.	—	— 6.50
70 p.c., bbls.	100 lbs.	—	— 7.50
80 p.c., bbls.	100 lbs.	—	— 8.00
Redistilled	100 lbs.	—	— 8.50
Pure	100 lbs.	9.25	— 9.50
Glacial, bbls.		12.25	—13.00
Alum, ammonia, lump	lb.	.03½	— .04
Ground	lb.	.04½	— .04¾
Powdered	lb.	.04¼	— .04½
Chrome	lb.	.15	— .16
Potash lump	**lb.**	**.08**	**— .08¼**
Chrome	lb.	.17	— .18
Ground	lb.	.09	— .09¼
Alum, Potash, Powdered	**lb.**	**.08**	**— .08¼**
Soda, Ground	**100 lbs.**	**—**	**— 6.25**
Aluminum chloride, carboys	lb.	—	— .05
Anhydrous	lb.	—	— .15
Sulph.	lb.	2.50	— 3.00
Low grade	lb.	1.60	— 1.90
Aluminum hydrate light	lb.	.14	— .16
Heavy	lb.	.07	— .08
Arsenic, white	lb.	.09½	— .10½
Red	lb.	.25	— .26
Ammonia, Anhydrous	**lb.**	**.30**	**— .35**
Ammonia Carbonate	lb.	.12¼	— .13¾
Ammonia Water, 26 deg., car.	lb.	—	— .09
20 deg., carboys	lb.	—	— .08
18 deg., carboys	lb.	—	— .06½
16 deg., carboys	lb.	—	— .06

*Nominal.

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ESSENTIAL
OILS
AND
Aromatic Chemicals

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Importers
Exporters

Correspondence Solicited

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Heavy Chemicals, Coal-tar Crudes, Intermediates, and Colors

Ammonium chloride, U.S.P.	lb.	—	— .28½
Sal Ammoniac, gray	lb.	—	— .13
Granulated, white	lb.	—	— .12
Lump	lb.	.25	— .26
Sulphate, foreign	100 lbs.	—	— —
*Domestic, bulk	100 lbs.	4.85	— 5.00
Antimony, Sulphuret	lb.	—	— .25
Crimson	lb.	—	— .35
Golden, No. 1	lb.	—	— .30
No. 2	lb.	—	— .25
Blanc Fixe, dry	lb.	.03½	— .04½
Barium, chloride	ton	80.00	—87.50
Binoxide	lb.	.23	— .25
Nitrate	lb.	.11	— .13
Barytes, floated, white	ton	25.00	—35.00
Off color	ton	14.00	—18.00
Bleaching Pd., f.o.b.wks	100 lbs.	2.25	— 2.50
Calcium Acetate	100 lbs.	2.00	— 2.10
Carbide	lb.	.05	— .07
Carbonate	lb.	.01¾	— .02¾
Chloride, solid, f.o.b.N.Y.	ton	20.00	—25.00
Granulated, f.o.b. N.Y.	ton	—	— —
Chlorine, liquefied	lb.	.07½	— .09
Carbon bisulphide	lb.	.05	— .06
Carbon tetrachloride	lb.	.10½	— .11
Copper Carbonate	lb.	—	— .28
Subacetate (Verdigris)	lb.	.45	— .48
Powdered	lb.	.40	— .42
Cyanide chlor. Mix., 73-76	....	.27	— .28
Sulphate, 98-99 p.c.	100 lbs.	8.55	— 8.60
99 p.c. carlots N.Y.	100 lbs.	—	— 8.70
Copperas, f.o.b. works	100 lbs.	1.10	— 1.20
Flourspar, Powdered	ton	40.00	—45.00
Fusel Oil, crude	gal.	2.50	— 2.85
Refined	gal.	3.75	— 3.80
Hydrofluoric Ac. 63 p.c. bbls.	lb.	.06	— .07½
48 p.c. in carboys	lb.	.09½	— .10
52 p.c. in carboys	lb.	.10	— .12¾
Lactic Acid, 22 p.c.	lb.	.05	— .07
Lead, Acetate, white crys.	lb.	.14	— .14½
Broken Cakes	lb.	.13¾	— .14
Granulated	lb.	.13¾	— .14
Arsenate, powdered	lb.	.28	— .30
Paste	lb.	.16	— .17
Nitrate	lb.	—	— .15
Oxide, Litharge, Amer. pd.	lb.	.09	— .13
Foreign	lb.	—	— —
Red, American	lb.	.10¾	— .13
Sulphate, basic	lb.	—	— .08¾
White, Basic Carb., Amer. dry	lb.	.09¾	— .13
in Oil, 100 lbs. or over	lb.	—	— .13
English	lb.	—	— —
Lithopone	lb.	.07	— .07¾
Lime, hydrate	lb.	—	— —
Acetate	100 lbs.	2.00	— 2.05
Sulphur solution	gal.	.17	— .22
Manganese Chlor.	lb.	.15	— .16
Sulp.	lb.	.15	— .17
Magnesite	ton	62.00	—65.00
f.o.b. N. Y.	lb.	.03½	— .04
Muriatic acid,			
18 deg. carboys	100 lbs.	—	— 1.75
20 deg. carboys	100 lbs.	—	— 2.00
22 deg. carboys	100 lbs.	—	— 2.25
Nickel oxide	lb.	.40	— .50
Salts, single	lb.	.14	— .16
double	lb.	.12	— .13
Nitric acid, 63 deg. carboys	lb.	.05	— .05¾
*38 deg. carboys	lb.	.06¾	— .06½
40 deg. carboys	lb.	.06¾	— .07
42 deg. carboys	lb.	.07¾	— .07¾
Phosphoric Acid, 85-88 p.c.	lb.	.33	— .38
99 p.c., tech.	lb.	.21½	— .25½
Phosphorus red	lb.	.60	— .70
Yellow	lb.	.35	— .40
Sesquisulphide	lb.	—	— .42½
Plaster of Paris	bbl.	1.50	— 1.60
True Dental	bbl.	1.75	— 2.00
Potash Caustic, 88-92	lb.	.27	— .32
Sticks	lb.	1.00	— 1.10
Potassium Bichromate	lb.	.26	— .27
Carbonate, calc. U.S.P.	lb.	.50	— .55
80-85 p.c.	lb.	—	— .25
85-90 p.c.	lb.	—	— .28
90-95 p.c.	lb.	—	— —
*96-98 p.c.	lb.	—	— —
Chlorate, cryst.	lb.	.18½	— .20
Powdered, American	lb.	—	— .20
Japanese	lb.	.19	— .20
Muriate, basis 80 p.c.		—	— —
Foreign			— 85.00
Permanganate, Com'l	lb.	—	— .50
Prussiate, red	lb.	1.10	— 1.15
Yellow	lb.	.45	— .50
Sulphate		—	—150.00
Saltpetre, Granulated	lb.	—	— .13¼
Soda Ash, 58 p.c. light	100 lbs.	1.90	— 2.15
In bbls.	100 lbs.	2.00	— 2.20
Dense 58 p.c. bags	100 lbs.	2.40	— 2.65
Caustic, 76 p.c.	100 lbs.	3.25	— 3.50
Ground, 76 p.c.	100 lbs.	4.00	— 4.25

*Nominal.

Sodium Acetate	lb.	.06½	— .07
Bichromate	lb.	.12½	— .13½
Bisulphate	ton	3.00	— 4.00
Carbonate, Sal. Soda in bbls.		—	— 1.40
Bicarbonate	lb.	—	— 2.45
Chlorate	lb.	—	— .15
Cyanide 96-98	lb.	.30	— .32
Hyposulph. bbls. gran.	100 lbs.	—	— 3.60
Kegs	100 lbs.	—	— 3.85
Nitrate, tech.	100 lbs.	2.95	— 3.15
Phosphate	100 lbs.	3.25	— 3.40
Refined	lb.	.07	— .07½
Nitrite	lb.	.11½	— .15
Prussiate, Yellow	lb.	.24½	— .25
Silicate, 60 deg.	lb.	.03	— .03¼
40 deg.	lb.	.02	— .02½
Sulphide, 60 p.c.	lb.	.04½	— .05½
30 p.c. crystals	lb.	.02	— .02½
Sulphite	lb.	.03	— .03¼
Sulphate, Gl'b. salt	100 lbs.	1.25	— 1.50
Sulphur Dioxide Com.	lb.	.08	— .11
Sulphur crude	ton	25.00	—30.00
Flour Com'l.	bbls.	1.70	— 2.00
Roll, 100 p.c.	100 lbs.	2.95	— 3.15
Flowers, 100 p.c.	100 lbs.	3.30	— 3.60
Sulphuric Acid, Tank carlots			
60 deg., f.o.b. wks.	ton	13.50	—16.00
66 deg. f.o.b. wks.	ton	17.50	—23.00
Oleum, f.o.b. wks.	ton	20.00	—25.00
Battery Acid car's per 100	lbs.	Nominal	
Tin, bichloride	lb.	.21½	— .22¼
Crystals	lb.	.43	— .45
Zinc, carbonate	lb.	.18	— .21
Chloride, Fused	lb.	.09	— .10
Granulated	lb.	—	— .13½
Oxide, French	lb.	.12	— .13
Leaded	lb.	.08¾	— .10½
Sulphate	lb.	.03½	— .04

Dyestuffs, Tanning Materials and Accessories

COAL-TAR CRUDES

Benzol C. P.	gal.	.25	— .28
(90 p.c.)	gal.	.25	— .28
Cresylic acid, crude, 95-97 p.c.	gal.	.65	— .75
50 p.c.	gal.	.50	— .55
25 p.c.	gal.	.30	— .35
Cresol, U.S.P.	lb.	.15¾	— .17
Creosote oil, 25 p.c.	gal.	.40	— .45
Dip. oil, 25 p.c.	gal.	.40	— .45
Naphthalene, balls	lb.	.08	— .11
Flake	lb.	.06	— .07
*Phenol	lb.	.12	— .17
Pitch, various grades	ton	14.00	—18.00
Solvent naphtha, waterwhite	gal.	.22	— .25
Crude heavy	gal.	.16	— .18
Toluol, pure	gal.	.25	— .30
*Commercial, 90 p.c.	gal.	.25	— .30
Xylol, pure water white	gal.	.40	— .45
Commercial	gal.	.30	— .35

INTERMEDIATES

Acid Benzoic (See fine Chemicals)			
Acid H	lb.	1.50	— 1.60
Acid Metanilic	lb.	—	— 1.60
Acid Naphthionic, Crude	lb.	.75	— .85
Refined	lb.	1.00	— 1.10
Acid Sulphanilic, crude	lb.	.25	— .30
Refined	lb.	—	— .35
p-Amidophenol Hdcl., 98 p.c.	lb.	—	— 2.50
*Aminoazobenzene	lb.	—	— —
Aniline Oil	lb.	.33	— .35
Aniline Salts	lb.	.34	— .36
Aniline for red	lb.	.60	— .65
*Anthracene (80 p.c.)	lb.	.65	— .70
Anthraquinone	lb.	5.50	— 6.00
Benzaldehyde, Tech.	lb.	.6[illegible]	— .70
U.S.P. & F.I.C., see Aromatic Chemicals			
Benzidine Base	lb.	1.00	— 1.20
Benzidine Sulphate	lb.	.90	— 1.00
Benzoate of Soda, U.S.P.	lb.	.80	— .85
Benzylchloride, 95-97	lb.	.26	— .28
Diamidophenol	lb.	—	— 6.00
Dianisidine	lb.	10.00	—12.00
Dinitrophenol	lb.	.30	— .32
o-Dichlorbenzol	lb.	.15	— .20
Dinitrobenzol	lb.	.23	— .32
Dinitrobenzol	lb.	.22	— .23
Diethylaniline	lb.	1.35	— 1.50
Dimethylaniline	lb.	.55	— .60
Dinitrochlorbenzene	lb.	.23	— .28
Dinitronaphthalene	lb.	.45	— .50

*Nominal.

Dinitrotoluol	lb.	.38	— .40
Diphenylamine	lb.	.53	— .58
Dioxynaphthalene	lb.	—	— —
"G" Salt	lb.	.65	— .75
Gammic Acid	lb.	—	— 2.50
Hydrazobenzene	lb.	1.50	— 2.00
Methylanthraquinone	lb.	—	— —
Monochlorbenzol	lb.	.10	— .12
Monothylaniline	lb.	1.90	— 2.00
Naphthalenediamine	lb.	—	— —
a-Naphthol, crude	lb.	.90	— .95
b-Naphthal, distilled	lb.	.45	— .48
Sublimed	lb.	.65	— .75
a-Naphthylamine	lb.	.32	— .40
b-Naphthylamine, tech.	lb.	1.15	— 1.25
Sublimed	lb.	—	— 2.00
Neuille Winter's Acid	lb.	1.70	— 1.90
Nitrobenzol	lb.	.15	— .16½
Nitrochlorbenzol	lb.	.40	— .45
Nitronaphthalene	lb.	.30	— .35
o-Nitrophenol	lb.	.75	— .85
p-Nitrotoluol	lb.	1.15	— 1.40
Nitrotoluol	lb.	—	— —
o-Nitrotoluol	lb.	.25	— .30
Paranitraniline	lb.	.95	— 1.10
m-Phenylenediamine	lb.	1.10	— 1.20
p-Phenylenediamine	lb.	2.75	— 3.00
Phthalic Anhydride	lb.	.80	— .90
Pseudo-Cumol	lb.	—	— —
"P" Salt	lb.	.62½	— .65
Resorcin, U.S.P., see Fine Chemicals			
Resorcin, Technical	lb.	3.50	— 5.00
Sodium Naphthionate	lb.	—	— 1.10
Tetranitromethylaniline	lb.	—	— 2.50
Tolidin	lb.	—	— 1.65
o-Toluidine	lb.	.25	— .30
p-Toluidine	lb.	1.50	— 1.75
m-Toluylenediamine	lb.	1.25	— 1.35
Xylene, pure	gal.	.40	— .50
Xylene, Com.	gal.	.40	— .50
Xylidine	lb.	.45	— .50

COAL-TAR COLORS

ACID COLORS:

Black	lb.	1.15	— 1.70
Blue	lb.	3.00	— 5.00
Brown	lb.	1.25	— 2.00
Fuchsin	lb.	2.50	— 3.50
Orange 11	lb.	.45	— .50
Orange 111	lb.	1.00	— 1.25
Red	lb.	1.10	— 1.20
Scarlet	lb.	—	— 1.00
Violet 10B	lb.	—	— 6.50
Amidine Yellow R.	lb.	—	— 1.50
Alpine Yellow	lb.	2.00	— 7.50
Alkaline Blue, Dom.	lb.	—	— 4.75
Alkaline Blue, Imp.	lb.	—	— 8.00
Azo Carmine	lb.	—	— 4.00
Azo Yellow	lb.	—	— 2.00
Azo Yellow, green shade	lb.	3.50	— 4.50
Brilliant Delphine B.S.	lb.	—	— 4.50
Erythrosine	lb.	12.00	—14.00
Fast Light Yellow, 2-G.	lb.	—	— 3.00
Fast Red, 6B extra, con't.	lb.	—	— 3.00
Granine	lb.	8.75	— 9.25
Indigo 20 p.c. paste	lb.	—	— .75
Indigotine, conc.	lb.	3.00	— 3.50
Indigotine, paste	lb.	1.50	— 1.60
Metanil Yellow	lb.	1.50	— 1.60
Medium Green	lb.	5.00	— 6.00
Naphthol Green	lb.	—	— 1.50
Naphthylamine Red	lb.	6.75	— 7.50
Nigrosine, Oil Sol.	lb.	—	— .90
Orange, R. G., contract	lb.	2.00	— 2.25
Orange Y conc.	lb.	.50	— .60
Patent Blue, Swiss Type	lb.	12.00	—16.00
Ponceau	lb.	—	— 1.00
Scarlet 2R	lb.	1.00	— 1.10
Tartrazine, Dom.	lb.	—	— 1.50
Tartrazine, Imp.	lb.	1.25	— 1.40
Uranine	lb.	10.00	—11.00
Wool Green S. Swiss	lb.	6.00	— 7.00
Yellow for Wool	lb.	1.50	— 2.25

DIRECT COLORS:

Black	lb.	.95	— 1.10
Sky Blue	lb.	3.25	— 3.75
Blue	lb.	—	— 1.10
Brown	lb.	1.55	— 1.75
Bordeaux	lb.	1.75	— 2.50
Fast Red	lb.	3.50	— 6.00
Fast Yellow	lb.	1.50	— 2.50
Yellow	lb.	2.00	— 4.00
Violet con't	lb.	2.20	— 2.50
Benzo Purperine 10B	lb.	3.50	— 4.00
Benzo Purperine 4B	lb.	1.80	— 1.90
Chryosophenine, Dom.	lb.	—	— 2.50
Chryosophenine, Imp.	lb.	—	— 3.00
Congo Red 4B Type	lb.	1.60	— 2.25
Diamine Sky Blue F. F.	lb.	5.00	— 5.25
Oxamine Violet	lb.	7.00	— 8.00
Primuline, Dom.	lb.	—	— 3.00

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Aluminum Hydrate	Lithopone
Barium Chloride	Magnesia Carbonate
Blanc Fixe	Magnesia Oxide
Caustic Soda	Soda Ash
Colors	Turpentine
Carbon Tetrachloride	White Lead
Epsom Salts	Whiting
Glauber Salts	Zinc Oxide

KATZENBACH & BULLOCK CO.
76 John Street, New York, N. Y.
Boston Trenton Montreal Akron
Chicago San Francisco Paris Buenos Ayres
Cable Address: KABOCK NEWYORK. All codes

WILLIAMSON & CO.
28-30 Burling Slip, New York
BROKERS
Intermediates
and
Dye Bases
SPECIALTIES
Amidonaphthol Sulphonic Acids
Phthalic Anhydride
Nitrated Phenols

Natural Dyestuffs, Tanning Materials, Fixed Oils, and Fats

OIL COLORS:

Black	lb.	.70	— 1.00
Blue	lb.	1.65	— 2.00
Orange	lb.	1.40	— 1.50
Red III	lb.	1.65	— 2.00
Red IV	lb.	1.80	— 3.50
Scarlet	lb.	1.75	— 2.00
Yellow	lb.	1.70	— 2.00
Nigrosine, spts. sol.	lb.	—	— .85
Nigrosine, water sol., blue	lb.	—	— .65
Jet	lb.	.90	— 1.00

SULPHUR COLORS:

Black	lb.	.30	— .40
Blue Dom.	lb.	.80	— .90
Brown	lb.	.35	— .45
Green	lb.	1.00	— 2.00
Yellow	lb.	.90	— 1.00

CHROME COLORS:

Alizarin Blue, bright	lb.	7.75	— 9.25
Alizarin, medium	lb.	6.25	— 7.50
Alizarin Brown, conc.	lb.	—	— 2.50
Alizarin Orange	lb.	—	— 1.90
Alizarin Red, W. S. Paste	lb.	5.00	—10.00
Alizarin Yellow G.	lb.	—	— 1.35
Alizarin Yellow R.	lb.	—	— 1.50
Chrome Black, Dom.	lb.	1.25	— 1.35
Chroms Black, Imp.	lb.	2.20	— 2.50
Chrome Blue	lb.	2.50	— 2.75
Chrome Green, Dom.	lb.	2.50	— 2.75
Chrome Red	lb.	—	— 2.00

BASIC COLORS:

Auramine, Single O. Dom.	lb.	—	— 2.50
Auramine, Double O. Imp.	lb.	—	— 3.50
Bismarck Brown Y.	lb.	.90	— 1.00
Bismarck Brown R.	lb.	1.20	— 1.30
Chrysoidine R	lb.	—	— 1.00
Chrysoidine Y	lb.	—	— .90
Crystal Violet	lb.	5.00	— 5.25
Emerald Green, Crystals	lb.	—	— 8.00
Green Crystals, Brilliant.	lb.	6.00	— 7.00
Indigo 20 p.c. paste	lb.	—	— .75
Fuchsine Crystals, Dom.	lb.	4.00	— 5.00
Fuchsine Crystals, Imp.	lb.	12.00	—12.50
Magenta Acid, Dom.	lb.	4.25	— 5.00
Magenta Crystals, Imp.	lb.	10.00	—12.00
Malachite Green, Crystals	lb.	—	— 4.50
Malachite Green, Powd.	lb.	—	— 3.50
Methylene Blue, tech.	lb.	2.25	— 3.50
Methyl Violet	lb.	2.60	— 2.75
Phosphine G. Domestic	lb.	7.00	—10.00
Rhodamine B, ex. con't.	lb.	—	—27.00
Valonia, solid, 65 p.c. tan.	lb.	5.00	— 6.00
Victoria Blue B.	lb.	—	— 5.50
Victoria Blue, base, Dom.	lb.	—	— 6.00
Victoria Green	lb.	6.00	— 7.00
Victoria Red	lb.	7.00	— 8.00
Victoria Yellow	lb.	7.00	— 8.00

NATURAL DYESTUFFS

Annatto, fine	lb.	.32	— .33
Seed	lb.	.05	— .07
Carmine No. 40	lb.	4.25	— 4.75
Cochineal	lb.	.65	— .80
Gambier, see tanning.			
Indigo, Bengal	lb.	2.75	— 3.00
Oudes	lb.	2.25	— 2.75
Guatemala	lb.	2.00	— 2.25
Kurpahs	lb.	2.00	— 2.25
Madras	lb.	.90	— 1.10
Madder, Dutch	lb.	—	— .28
Nutgalls, blue Aleppo	lb.	—	— .75
Chinese	lb.	.34	— .35
Persian Berries	lb.	—	— —
Quercitron Bark, see tanning.			
Turmeric, Madras	lb.	.13½	— .14
Aleppey	lb.	—	— .10

DYEWOODS

Barwood	lb.	.06	— .08
Camwood, chips	lb.	.18	— .20
Fustic, sticks	ton	30.00	—35.00
Chips	lb.	.04	— .06
Hypernic, chips	lb.	.07	— .09
*Logwood Sticks	ton	25.00	—35.00
Chips	lb.	.03½	— .05½
Quercitron, see tanning.			
Red Saunders	lb.	.20	— .22

EXTRACTS

Archil, Double	lb.	.17	— .20
Triple	lb.	—	— .19
Concentrated	lb.	.20	— .25
Cutch, Mangrove, seen tanning.			
Rangoon, boxes	lb.	.16	— .18
Liquid	lb.	.12	— .14
Tablet	lb.	.14	— .15
Cudbear, French	lb.	—	— —
English	lb.	.22	— .26
Concentrated	lb.	—	— —

*Nominal.

Flavine	lb.	1.00	— 1.50
Fustic, Solid	lb.	.22	— .27
Crystals 100 p.c.	lb.	.30	— .40
Extract 42 deg.	lb.	.14	— .16½
Liquid, 51 deg.	lb.	.15	— .19
Gall	lb.	.25	— .27
Hematine Extract 51 deg.	lb.	.11	— .13½
Crystals, 100 p. c.	lb.	.26	— .28
Hypernic, liquid, 51 deg.	lb.	—	— .24
Indigo, natural	lb.	2.00	— 2.50
Extract	lb.	.30	— .37
Indigotine, 100 p.c. pure	lb.	3.00	— 3.50
Logwood, solid	lb.	—	— .18
Crystals, 100 p.c.	lb.	—	— .21
51 deg., Twaddle	lb.	—	— .10
Contract	lb.	.10¼	— .10¾
Osage Orange, Extract 42 deg	lb.	.09	— .10
Crystals, 100 p.c.	lb.	—	— .20
Paste	lb.	—	— .10
Persian Berries	lb.	—	— —
Quebracho, see tanning.			
Quercitron, 51 deg.	lb.	.06½	— .07½
Powdered, 100 p.c.	lb.	.13	— .14

MISCELLANEOUS DYESTUFFS

Albumen, Egg	lb.	1.90	— 2.00
Technical	lb.	1.15	— 1.25
Blood, imported	lb.	.80	— .85
Domestic	lb.	.55	— .60
Prussian blue	lb.	.65	— .80
Soluble	lb.	.65	— .80
Turkey Red Oil	lb.	.15	— .20
Zinc Dust, prime heavy	lb.	.12	— .14
100-lb. tins	lb.	—	— .12
520-lb. casks	lb.	—	— .11
Carload lots	lb.	—	— .10

DEXTRINES AND STARCHES

British Gum	per 100 lbs.	8.00	— 8.50
Dextrine, Corn, white or yellow	per 100 lbs.	7.50	— 7.75
Potato, white or canary	lb.	.17	— .18
Starch, Powd., bags & bbls.		—	— 6.25
Pearl, Globe, bags & bbls.		—	— 6.25
Potato, Domestic	lb.	—	— .09½
Imported, duty paid	lb.	.09¼	— .09½

RAW TANNING MATERIALS

Algarobilla	ton	185.00	—200.00
Divi Divi	ton	74.00	—76.00
Hemlock Bark	ton	15.00	—16.00
Mangrove, African, 38 p.c.	ton	65.00	—70.00
Bark, S. A.	ton	60.00	—65.00
Myrobalans	ton	50.00	—60.00
Oak Bark	ton	15.00	—16.00
Ground	ton	—	—17.50
Quercitron Bark rough	ton	13.00	—15.00
Ground	ton	27.00	—2[illegible]00
Sumac, Sicily, 27 p.c. tan.	ton	105.00	—115.00
Virginia, 25 p.c. tan.	ton	75.00	—85.00
Valonia Cups	ton	—	— —
Beard	ton	—	— —
Wattle Bark	ton	70.00	—75.00

TANNING EXTRACTS

Chestnut, ordinary, 25 p.c. tan, bbls.	lb.	.03	— .03¼
Clarified, 25 p.c. tan, bbls.	lb.	—	— .03½
Crystals, ordinary	lb.	—	— —
Clarified	lb.	—	— —
Gambier, 25 p. c. tan.	lb.	.17	— .18
Common	lb.	.09	— .11
Cubes, Singpaore	lb.	.18	— .20
Cubes, Java	lb.	.14	— .16
Hemlock, 25 p.c. tan.	lb.	.05	— .05½
Larch, 25 p.c. tan.	lb.	.04½	— .04½
Crystals, 50 p.c. tan.	lb.	.08¼	— .08¾
Mangrove, 55 p.c. tan.	lb.	.09	— .10
Liquid, 25 p.c. tan.	lb.	.08	— .10
Muskegon, 23-30 p.c. tan, 50 p.c. total solids.	lb.	.01¾	— .02½
Myrobalans, liq., 23-25 p.c. tan	lb.	Nominal	
*Solid, 50 p.c. tan.	lb.	—	— —

*Nominal

Oak Bark, liquid, 23-25 p.c. tan	lb.	—	— .05¾
Quebracho, liquid, 35 p.c.	lb.	—	— .07½
*35 p.c. tan, untreated	lb.	—	— .06½
*35 p.c. tan, bleaching	lb.	—	— .08
*Solid, 65 p.c. tan, ordinary	lb.	—	— .12
*Clarified	lb.	—	— —
Spruce, liquid, 20 p.c. tan, 50 p.c. total solids	lb.	.01¾	— .01¾
Sumac, liquid, 25 p.c. tan.	lb.	.06½	— .08
Valoni., solid, 65 p.c. tan.	lb.	Nominal	

Oils

ANIMAL AND FISH
(Carloads)

Cod Newfoundland	gal.	—	— 1.20
Domestic, prime	gal.	—	— 1.15
Liver, Newfoundland	bbl.	—	—90.00
Norwegian	bbl.	—	—135.00
Degras, American	lb.	.06½	— .07½
English	lb.	.07½	— .08½
Neutral	lb.	.14	— .18
Horse	lb.	.15	— .16
Lard, prime	gal.	1.80	— 1.85
Off prime	gal.	1.70	— 1.75
No. 1	gal.	—	— 1.30
Extra, No. 1	gal.	—	— 1.40
No. 2	gal.	—	— 1.20
Menhaden, Light strained	gal.	—	— 1.28
Yellow, bleached	gal.	—	— 1.30
White, bleached, winter	lb.	—	— 1.32
*Northern, crude	gal.	—	— 1.10
Southern crude, f.o.b. plant	gal.	—	— 1.05
Neatsfoot, 20 deg.	gal.	—	— 2.25
30 deg., cold test	gal.	—	— 2.15
40 deg., cold test	gal.	1.95	— 2.00
*Dark	gal.	—	— 1.50
*Prime	gal.	—	— 1.55
Oleo Oil	lb.	.25	— .29
Red (Crude Oleic Acid)	lb.	.17	— .17½
Saponified	lb.	.17	— .17½
Sperm bleached winter			
38 deg., cold test	gal.	—	— 2.00
45 deg., cold test	gal.	—	— 1.95
Natural winter, 38 deg., cold test	gal.	1.95	— 2.00
Stearic, single pressed	lb.	—	— .27½
Double pressed	lb.	—	— .28½
Triple pressed	lb.	—	— .30
Tallow, acidless	gal.	—	— 1.60
Prime	gal.	—	— 1.55
Whale, natural winter	gal.	1.25	— 1.30
Bleached, winter	gal.	1.30	— 1.35

VEGETABLE OILS

Castor, No. 1 bbls.	lb.	—	— .21
Cases	lb.	.23	— .23½
No. 3	lb.	—	— .19½
China Wood Oil, bbls.	lb.	—	— .23
Coconut, Dom. Ceylon, bbls.	lb.	.17¼	— .18
Tanks	lb.	.16	— .16¼
Cochin, bbls. bbls., Dom.	lb.	.19½	— .20
*Tanks	lb.	.18½	— .19
Manila, tanks, coast	lb.	.15¾	— .16
Corn, refined, bbls.	lb.	.24	— .24½
Crude, Tanks	lb.	—	— .16
Cottonseed, Crude, f. o. b. mills, in tanks	lb.	.16	— .16½
Summer, yel., prim., bbl.	lb.	—	— .22
*White	lb.	—	— —
*Winter yellow	lb.	—	— .23
Linseed, raw car lots	gal.	1.75	— 1.86
5 barrel lots	gal.	1.78	— 1.89
Boiled, 5-bbl. lots	gal.	1.79	— 1.90
Double Boiled, 5-bbl. lots	gal.	1.80	— 1.91
*Olive, denatured	gal.	—	— 2.50
Edible	lb.	3.00	— 3.15
*Foots	lb.	—	— .20
Palm, Lagos casks	lb.	—	— .18
*Benin	lb.	—	— .16½
Niger	lb.	—	— .16
*Palm Kernel, domestic	lb.	—	— —
*Imported	lb.	—	— —
Peanut Oil, refined	lb.	.26	— .26½
*Crude, f.o.b. mills	gal.	—	— .22
Oriental, const	lb.	.20	— .20½
Poppy Seed	gal.	2.75	— 3.00
Rapeseed, ref'd, bbl.	gal.	1.60	— 1.65
*Blown	gal.	1.65	— 1.70
*Sesame, domestic, edible	gal.	—	— 2.40
*Imported	gal.	—	— —
Soya Bean, Tanks, Pac. Coast	lb.	.14½	— .15
New York, bbls.	lb.	.17¼	— .17½

GREASES, LARDS, TALLOWS
(New York Markets)

Grease, *white	lb.	.17	— .18
Yellow	lb.	.13	— .14
House	lb.	.13	— .14

*Nominal

Greases, Cocoa, Shellac, Naval Stores, and Miscellaneous

Grease, Brown	lb.	.10	— .12
Lard City	lb.	—	— .25
Compound	lb.	—	— .24
Stearine, lard	lb.	—	— .33
Oleo	lb.	—	— .19
Tallow, edible	lb.	.17	— .18
City, Loose	lb.	.15	— .15½
(Chicago Markets)			
Tallow, edible	lb.	.17½	— .18
City Fancy	lb.	.17¼	— .17¾
Prime Packers	lb.	.17	— .17½
Grease, Choice White	lb.	.18	— .18¼
"A" White	lb.	.17	— .17½
"B" White	lb.	.14½	— .15
Yellow	lb.	.13	— .13½
Brown	lb.	.11	— .11½
Bone	lb.	.10½	— .11
House	lb.	.12½	— .13
Stearine, prime oleo	lb.	.18½	— .19
Lard, city steam	lb.	.24½	— .25

OIL CAKE AND MEAL

Cottonseed Cake, f.o.b. Texas		—	—54.50
f.o.b. New Orleans		—	— —
Cottonseed, Meal, f.o.b. Atlanta		—	—56.00
Columbia		—	—53.00
New Orleans	ton	—	— —
Corn Cake	short ton	55.00	—57.00
Meal	short ton	59.00	—64.26
Linseed cake, dom.	short ton	—	—80.00
Linseed Meal	short ton	—	—80.00

*Nominal.

Miscellaneous

COCOA

Accura	lb.	.18	— .19
Bahia	lb.	.22	— .23
Caracas	lb.	.19	— .20
Hayti	lb.	.19	— .20
Maracaibo	lb.	.19	— .20
Trinidad	lb.	.25	— .26

SHELLAC

*D. C.	lb.	—	— —
*Diamond "I"	lb.	—	— —
*Fine Orange	lb.	1.10	— 1.15
Second Orange	lb.	—	— —
*T. N.	lb.	1.00	— 1.10
A. C. Garnet	lb.	—	— 1.10
*Button	lb.	—	— 1.20
Regular, bleached	lb.	—	— 1.10
Bone, dry	lb.	—	— 1.25

NAVAL STORES
(Carloads ex-dock)

Spirits Turpentine in bbls.	gal.	1.73	— 1.75
Wood Turpentine, steam distilled, bbls.	gal.	—	— 1.30
*Turpentine, Destructive distilled, bbls.	lb.	—	— 1.21
Pitch, prime	200 lb. bbl.	8.50	—10.50
Rosin, common	280 lb. bbl.	—	—17.00
Medium	bbl.	—	—19.00
Pale	bbl.	—	—26.00
Tar, kiln-burnt, pure 50-gal. bbls.		12.50	—13.00

*Nominal

Imports and Exports of Drugs and Chemicals, Dyestuffs, Etc.

Imports from Sept. 26 to Oct. 3

Imports

ACIDS—Citric, 100 kegs, American Exchange National Bank, London; 20 csks., 58 kegs, McKesson & Robbins, London; **Formic,** 280 kegs, R. W. Greeff & Co., Rotterdam; **Tartaric,** 1 cs., 26 csks. McKesson & Robbins, London; 7 csks., 15 kegs, Brown Bros. & Co., London.

ALBUMEN—86 cs., Standard Bank of South America; 32 cs. Brown Bros. & Co., London

ALMONDS—Shelled, 1,600 cs., First Security National Bank, Bordeaux

ANILINE COLORS—9 pkgs., New York Color & Chemical Co., Havre; 5 pkgs. Heller &Mertz Havre; 63 cylinders, Aniline Dyes & Chemical Co., Havre; 29 pkgs. Atteaux & Co., Havre; 6 cylinders, Andreykowitz Co., Havre; 6 cylinders, L. B. Fortner, Havre; 12 pkgs. E. M. Meyer, Havre

ANTIMONY SULPHIDE—49 csks. F. O. Nelson, Southampton

BALSAM COPAIBA—16 bs. American Balsam Corporation, Cristobal

BARK—Cinchona 20 bales, Peek & Velsor, London; **Quillaya,** 283 bales, W. R. Grace & Co., Valparaiso

BAY RUM—26 cs. J. Alcantara Hijos, San Juan; 8 bbls. **Platz Bauer, San Juan; 11** bbls. Born Distilling Co., San Juan; 25 bbls. Magnus, Mayhe & Renna, San Juan; 25 bbls., McKesson & Robbins, San Juan.

BEANS—Castor, 122 bgs. West Indies Corporation, Petit Goave; 33 bgs. Huttlinger & Struller, Petit Goave; 550 bgs. Gustave Amsinck & Co., Inc., Port Au Prince; 1,027 bgs. United West Indies Corporation, Port Au Prince; 223 bgs. H. Mann & Co., Port De Paix; 200 bgs. Yglesias & Co., Inc. Port De Paix; 18 bgs. J. L. Hachtmann & Co., Cape Haytien; 114 bgs., 140 bgs. H. Mann & Co., Cape Haytien; 500 bgs. United West Indies Corporation, Cape Haytien; **Cocoa,** 1,225 bgs. Guaranty Trust Co., Havre; 103 bgs. De Sola Bros. & Pardo, La Guayra; 570 bgs. Commercial Bank of British America Ltd., La Guayra; 1 bgs. M. D. Buerra & Co., South Pacific ports; 158 bgs. Frame & Co., Colombo; 7,357 bgs., Brown Bros. & Co., Calcutta; 15,625 bgs. Guaranty Trust Co., Bordeaux; 144 bgs. Willard, Hawes & Co., London; 76 bgs. Curacao Trading Co. Paramaribo; 500 bgs. American Trading Co., 200 bgs. Meyer & Co., Paramaribo; 12 bgs., New York, Pacific California Co., Aux Cayes; 26 bgs. W. Schall & Co., Jeremie; 191 bgs. R. M. Ward & Co., Cape Haytien; 20 bgs. New York Pacific Commercial Co., Cape Haytien; 198 bales Pablo Hanis, Sourabaya; 156 bgs. Battery Park National Bank, Batavia; 70 cs., Lotman, Mackay & Co., Batavia; **Vanilla,** 22 cs. Thurston & Braidich, Bordeaux; 2 cs. Park & Tilford, Bordeaux.

BITTERWOOD—50 tons, J. E. Kerr & Co.

CASEINE—455 bgs. Hanover National Bank, Buenos Aires; 1,033 bgs. 35 bgs. Brown Bros. & Co., Bombay

CHEMICALS—Miscellaneous, 36 cs. Murch & Co., London; 210 csks. Roessler, Haslacher Chemical Co., Rotterdam; 10 cs., F. B. Vandegrift & Co., Sopthampton; 4 cs. R. H. Macy & Co., Southampton; 64 drums, Helvetian & Co., Havre

COCCULUS INDICUS—5 bgs. McLaughlin, Gormley, King & Co., Lonlon

COPRA—64 bgs. I. Brandon & Bros., Panama

CREOSOTE, MEDICINAL—3 cs. Tilden & Co., London; **Saponified,** 150 csks. Brown Bros. & Co., Hull

CUTTLEFISH BONE—178 cs. Brown Bros. & Co., Bordeaux; 11 cs. Stern & Stern, Glasgow; 4 straps, McKesson & Robbins, Glasgow; 23 cs. Irving National Bank, Antwerp

DIVI-DIVI—3,649 bgs. Ultramares Corporation, Curacao; 4,234 bgs. Flynn, Marbourg, Curano, Curccao

DRAGON'S BLOOD—2 cs. Brown Bros. & Co., Bombay

DRUGS—Crude, 30 bls., Brown Bros. & Co., London; **Miscellaneous,** 2 cs. McKesson & Robbins, London

ERGOT RYE—28 bgs. Equitable Trust Co., Bilbao; 104 bgs. Garcia, Segin & Gertal, Bilbao; 14 bgs. Anglo South American Bank, Bilbao; 38 bgs., F. B. Vandegrift & Co., Bilbao; 13 bgs. E. Lilly & Co., Bilbao

EXTRACTS—Logwood, 150 bbls. Hayti Manufacturing Corporation, Cape Haytien; **Quebracho** 3,611 bgs. Central Union Trust Co., Buenos Aires; 4,665 bgs. Lee Higginson & Co., Buenos Aires

GALL NUTS—25 bgs. Brown Bros. & Co., Bombay

GUMS—Aloes, 19 kegs, Schieffelin & Co., London; 2 cs. Peek & Velsor, London; 9 cs. Brown Bros. & Co., Aden; 4 cs. R. Desvernine, Aruba; **Arabic** 33 bgs., 74 cs. Brown Bros. & Co., Aden; 29 bgs. T. M. Duche & Sons, Bombay; **Asafetida,** 30 cs. Brown Bros. & Co., Bombay; **Gamboge,** 2 cs. W. R. Warner & Co., London; **Myrrh,** 27 bgs. 14 cs., 44 bgs. Brown Bros. & Co., Aden; **Olibanum,** 100 cs., Brown Bros. & Co., Bombay; **Tragacanth,** 77 csks., 12 cs. Brown Bros. & Co., London; 215 bgs. Thurston & Braidich, London; 2 cs. McKesson & Robbins London; 8 cs. National City Bank, Constantinople; 73 pkgs. Brown Bros. & Co., Constantinople; 80 bgs. T. J. France, London

LEAVES—Coca, 84 bls. Maywood Chemical Works, Salvarrey; **Henna,** 38 bgs. Peek & Velsor, London; **Senna,** 48 bls. McKesson & Robbins, London; 7 bls. Brown Bros. & Co., Bombay

LICORICE PASTE—40 cs., Powers-Weightman-Rosengarten Co.

LIME CITRATE—291 cs. Powers-Weightman-Rosengarten Co., Cristobal

LIME JUICE—660 cs. Jas. P. Smith & Co., London; 350 cs., 600 cs. Brown Bros. & Co., London

LITHOL—50 cs. A. Klipstein & Co., Havre

MEDICINES—Miscellaneous, 2 cs. Gabriel Fajardo, San Juan

MENTHOL—30 cs. McKesson & Robbins, London; **Crystals,** 51 cs., 10 cs., McKesson & Robbins, Liverpool

MERCURY—1 bottle, C. E. Griffen, Panama

MYROBALANS—2,286 pockets, 325 bgs. Brown Bros. & Co., Bombay; 2,000 pockets, Baring Bros. & Co., Bombay; 20,073 bgs. Calcutta

NUX VOMICA—200 bgs., 1,678 bgs., 463 bgs. McKesson & Robbins, London; 530 bgs. Brown Bros. & Co., Bombay; 100 bgs. Baring Bros. & Co., Bombay

OILS—Coconut, 125 pipes, Brown Bros. & Co., Calcutta; **Cottonseed** 77 bbls. W. R. Grace & Co., St. Marc; **Linseed,** 17 drums, Keystone Varnish Co., Hull; **Olive,** 30 csks. La Montagne, Chapman & Co., Bordeaux; 150 cs. Equitable Trust Co., Bordeaux; **Petroleum Medicinal, White,** 5 drums, Oil Products Co., Ltd., London

OILS—Essential, 87 cs. George Lueders & Co., London; 3 cs. Ungerer & Co., London; 4 drums, National Park Bank, Batavia; 1 cs. National Park Bank, Batavia; **Aniseed** 25 cs. McKesson & Robbins, London; 25 cs. J. B. Horner, Inc., London; **Bay,** 3 bxs., 21 bbls., 3 bxs., Born Distilling Co., San Juan; **Limes,** 9 cs. Dodge & Olcott Co., Cristobal; **Peppermint,** 25 cs. J. B. Horner, Inc., London; 66 cs. McKesson & Robbins, London

OPIUM—25 cs. G. Gulbenkian, Constantinople; 25 cs., 14 cs., 4 cs., Brown Bros. & Co., Constantinople; 25 cs. Powers-Weightman-Rosengarten Co., Constantinople; 10 cs. Brown Bros. & Co., Karachi

PARA-TOLUIDIN—9 csks. Essex Aniline Works, Inc., Hull

PERFUMERY—9 cs. Southern Pacific Co., Southampton; 2 cs. D. C. Andrews & Co., Southampton; 8 cs. M. J. Corbett & Co., Southampton; 31 cs. Roger & Gallet, Antwerp; 1 cs. J. T. Murphy, Havre; 7 cs. E. H. Burr, Havre; 5 cs. American Foreign Express Service, Havre; 12 cs. Park & Tilford, Southampton; 4 cs. Orbis Products Trading Co., Bordeaux

POTASSIUM MURIATE—187 bgs. Brown Bros. & Co., Rotterdam; 110 bls. Bache Bros. Antwerp; 185 bgs. R. A. Munroe & Co., Havre

QUEBRACHO—1,794 tons, New York Quebracho Extract Co., Santa Fe

QUININE SULPHATE—50 cs. Brown Bros. & Co., London; 125 bxs. Balfour, Williamson & Co., Batavia

ROOTS—Arrow, 50 bbls. Brown Bros. & Co., London; **Colombo,** 12 bgs. Peek & Velsor, London; 51 bgs. Brown Bros. & Co., Bombay; **Dandelion,** 37 bgs. Peek & Velsor, London; **Ipecac,** 1 bg. J. Brandon & Bros., Panama; **Medicinal, Miscellaneous,** 1 cs. Parke, Davis & Co., Bombay; **Orris** 60 bgs. J. Wolf & Co., Leghorn; **Sarsaparilla,** 10 bls. Brown Bros. & Co., London; **Valerian,** 124 bls. Chas. L. Huisking, Inc., Antwerp

SALTPETER—500 bgs., 500 bgs., 500 bgs., Ralli Bros., London

SANTONINE—1 cs. McKesson & Robbins, London; 1 cs. McLaughlin, Gormley, King & Co., London

SEEDS—Cardamoms, 11 cs., 5 cs. Brown Bros. & Co., Bombay; **Fennel** 84 bgs. Peek & Velsor, London; 9 bgs. Brown Bros. & Co., Bombay; **Linseed,** 40,622 bgs. American Linseed Oil Co., Buenos Aires; **Miscellaneous,** 550 bgs. American Express Co., Havre; **Poppy,** 50 bgs. Childs & Joseph, Bombay; 129 bgs. National Bank of India, Bombay; 131 bgs. Brown Bros. & Co., Bombay; **Quince,** 19 bgs. McKesson & Robbins, London

SHAVING POWDER—Medicinal, 20 cs. Muller, McLean, Samarang

SODIUM PRUSSIATE—77 csks. National City Bank, London; 77 csks., 30 csks. Brown Bros. & Co., London

SPICES—Cinnamon, Quills, 200 bls. Frame & Co., Colombo; **Cloves,** 6 cs. Brown Bros. & Co., Bombay; **Ginger,** 100 bgs. Baring Bros. & Co., Bombay; 25 bgs. Brown Bros. & Co., Bombay; **Pepper, Black** 57 bgs. Childs & Joseph, Bombay; 200 bgs. National Bank of India, Bombay; 46 bgs. Baring Bros. & Co., Bombay; 200 cs. A. Bourjois & Co., Bordeaux; 1,190 bgs. Josten & Jansen, Batavia; 1,000 bgs. Brown Bros. & Co., Batavia

TARTAR—220 bgs. Harshaw, Fuller & Goodwin, Bordeaux; 60 csks. Brown Bros. & Co., Bordeaux

TURMERIC—200 bgs. Baring Bros. & Co., Bombay; 18 bgs., 177 bgs., 200 bgs., 220 bgs. Brown Bros. & Co., Bombay

WATER—Mineral, 10 cs. A. Meyers, Bordeaux

WAX, BEES—35 bgs. D. Portillo, Neuvitas; 4 bbls. Huttlinger & Struller, Aux Cayes; 1 bg. New York & Pacific Canal Co., Port De Paix; 10 bgs. Yglesias & Co., Inc., Port De Paix; 2 csks. H. Mann & Co., Cape Haytien

WINE LEES—35 csks. Brown Bros. & Co., Bordeaux

ZINC SULPHITE—2 csks. E. A. Sykes, London

Foreign Trade Opportunities

The Department of Commerce, Washington, D. C., has received the following inquiries for drugs, chemicals and accessories. Reserved addresses may be obtained from the Bureau and its district and cooperative offices. Request for each opportunity should be on a separate sheet and state opportunity number. The Bureau does not furnish credit ratings or assume responsibility as to the standing of foreign inquirers; the usual precautions should be taken in all cases.

30674—A company in England is in urgent need of glass bottles for medicinal purposes and desires immediate quotations. References.

30789—A business man in Belgium desires to secure agencies for the sale of raw materials for soap factories, stationery, oil mills, and textile industries; food for cattle, oil cakes, bran machines, tools, metals for composition, and heavy chemicals. Quotations should be given c. i. f. Antwerp. Correspondence may be in English, but catalogues are preferred in French. Reference.

30723—Agencies are desired by an association in Netherlands for the sale of machinery and lubricating oils and greases. Correspondence may be in English. Reference.

30773—A business man in Norway is organizing a company for the handling of soaps, washing powders, cleaners, lubricants, and paints, and desires to get in touch with manufacturers and exporters of these lines. Correspondence may be in English.

30779—A chemist in Belgium desires to secure an agency for the sale of chemical products, and tanning products or aniline colors.

MINERAL OILS FROM ALUM SHALE

The commission appointed by the Swedish Government in 1913 to examine the possibilities of the manufacture of mineral oils from alum shale has recently submitted its report. Despite the high cost of constructing the plant a paying industry could be established if conditions at all approximate those of August, 1918.

The cost of constructing a plant for extracting mineral oils, with 36 retorts handling 50,000 tons of shale per year, based upon prices prevailing in August, 1918, would amount to 3,855,000 crowns ($1,033,140). Such a plant before the war would have cost but 1,260,000 crowns ($337,680). To construct a plant handling 50,000 tons per year for the manufacture of refined products would cost 4,129,000 crowns ($1,106,572). Before the war such a plant would have cost 1,368,000 ($366,612). The operating costs per year of the plants mentioned are estimated at 873,940 and 446,000 crowns ($234,218 and $119,528, respectively).

As to the probable earnings per year of such plants one of the members of the commission estimated that refined products, including ammonium sulphate, could be extracted to the value of 1,616,093 crowns ($433,113). The running expenses are estimated at 830,250 crowns ($222,507).

WANT HIGHER TARIFF ON JAPAN'S IMPORTS

A committee of the Japan Chemical Industries Association has approved and forwarded to the Japanese Government a set of resolutions calling for higher tariff as follows:

1. An import duty of yen 5 per 100 kin to be imposed on potassium chlorate, provided no duty is imposed on potassium chloride.

2. Import duty on caustic soda to be 25 per cent. Price of salt to be reduced to 40 sen. Exports of bleaching powder to be subsidized at the rate of yen 1 per 100 lb.

3. The post-war cost of the manufacture of soda ash may be estimated as yen 115.77 (per ton?), and it is requested that the Government take steps to protect the industry, as prospects are not entirely hopeless.

4. The present import duty of 5 per cent on "intermediate" chemical manufactures (i. e., those which are neither dyestuffs nor drugs), should be revised.

A duty of 25 per cent ad valorem to be imposed on raw materials such as benzine and methyl alcohol; on salvarsan and compounds of arsenic, yen 4 per gram.

5. That the Government-protected factories should not take up the manufacture of products successfully manufactured by private concerns.

6. The Government should establish regulations for granting subsidies to exporters of chemicals, and arrange for rebates of insurance and freight charges.

7. If import duties on zinc and lead be increased at any time in the future, a rebate should be given when these materials are to be used for the manufacture of paint or cosmetics.

German business enterprise is very much in evidence once more. Of nine consecutive advertisements in a leading Parisian daily six are from the Rhine and beyond. A cotton-bleaching firm at Neuss-sur-Rhin seeks work. "K. Z. 1894, care of Rudolf Mosse, Cologne," wishes to enter business relations with French, Belgian or British firms manufacturing or selling alcohol (98 per cent), mercury, opium and camphor. A varnish factory in the Rhenish occupied region has similar ambitions. A "German agent" seeks clients for commission business. A chemical works, refining oil and manufacturing lacquer, seeks an outlet for its energies and business for its "extensive commercial organization and numerous agents." Another, established twenty years at Cologne, wishes to represent a foreign starch manufacturer.

Prof. J. A. McRae, of the Department of Chemistry, Queen's University, Kingston, Ont., has sailed for England, where he will undertake chemical research at a British university under a special fellowship awarded him by the Canadian Advisory Council for Scientific Research.

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SAMPLE PAGE

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ABSINTHIUM, N. F. (Absinth.)—Absinthium, Wormwood.
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Aver. Doss.—2 Gm. (30 grains).
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ACACIA, U. S. (Acac.) Acacia—Gum Arabic.
The dried gummy exudation from Acacia Senegal and other African species of Acacia (Fam. Leguminosae.).
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Official Preps.—Mucilago Acaciae, Syrupus Acaciae.

ACETANILID, U. S. (Acetanil.)—Acetanilid, Acetanilide.
Antifebrin.
The monoacetyl derivative (C_8H_9ON or $C_6H_5NH.CH_3CO$ =135.08) of aniline.
Ther. Props.—Antipyretic.
Aver. Dose—0.2 Gm. (3 grains).

ACETONUM, U. S. (Aceton.)—Acetone, Dimethyl-ketone.
A liquid containing not less than 99 per cent by weight of C_3H_6O or $CH_3CO.CH_3$ (58.05). Preserve in well-closed containers, in a cool place, remote from fire.
Ther. Props.—Used as solvent.

ACETPHENETIDINUM, U.S. (Acetphen.)—Acetphenetidin.
The monoacetyl derivative ($C_{10}H_{13}NO_2$=179.11) of para-amidophenetol.
Ther. Props.—Analgesic; antipyretic.
Aver. Dose—0.300 Gm. (5 grains).

ACETUM AROMATICUM, N. F. (Acet. Arom.)—Aromatic Vinegar.
A mixture of alcohol, acetic acid, and water, aromatized with the oils of lavender, rosemary, juniper, peppermint, cinnamon, lemon and clove.
Ther. Props.—Antiseptic, restorative, inhalent.

ACETUM OPII, N. F. (Acet. Opii.) — Vinegar of Opium, Black Drop.
Opium, 10 per cent.
Ther. Props.—Anodyne, antispasmodic, cerebrospinal depressant, hypnotic (similar to tincture of opium).
Aver. Dose—0.5 mil. (8 minims.).

ACETUM SCILLAE, U.S. (Acet. Scill.)—Vinegar of Squill.
Squill, 10 per cent.
Ther. Props.—Expectorant.
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